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ABSTRACT

This document consists of the print version of the spring and fall 1988 issues of an electronic journal; each of the issues contains three conventional articles and an exploratory "forum" article. In the spring issue, the articles and authors are "Propaganda and Adult Education" by Richard J. Novak (12 references); "The Informing of Adult Education by Adult Development" by Nancy E. Hagan (17 references); "Procedures for Writers in the Field of Adult Education: How to Make Your Writings More Consistently Accessible within Computerized Information Databases" by Judith Gwinn Adrian (13 references); and "Feminist Methodology: A New Way of Knowing" by Carolyn Chase (12 references). In the fall issue, the articles and authors are "Into 'Terra Incognita': Considerations on the 'Timeliness' and 'Importance' of the Carnegie Corporation's Early Involvement in Adult Education" by Michael Law (24 references); "Women and Literacy in Tanzania" by Sharon Cramer Bell (11 references); "Physical Learning Environments: Why Be Concerned" by Rodney Fulton (12 references); and "Introducing Metaphors of Chaos to Adult Education" by Robert Domaingue (6 references). Information on joining AEDNET, the electronic mail network through which "New Horizons" is accessed, concludes the document. (CML)

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Volume 2 Number 5/13/88 Spring 1988

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PROPAGANDA AND ADULT EDUCATION

FILE: HORIZON2 FILE A S.U. COMPUTING AND NETWORK SERVICES VM/SP

by

Richard J. Novak

Abstract: The issue of whether or not adult educators should condone so called propagandistic materials, as were used in the literacy campaigns of Nicaragua, is a complex one. The issue is part of a larger one: the interfacing of propaganda, politics, and education. There are many aspects to this interfacing which confront the adult educator. The following article begins with an explication of propaganda, highlighting related issues which confront the adult educator. From there, the article looks at the specific example of Nicaragua and at literacy education in general. This is followed by some suggestions for practice.

Propaganda Through Human History

"Persuasion is a fundamental form of social coercion. It dates back probably to the earliest social groupings of man" (Biddle, 1932, p. 20). Indeed, Lasswell, Lerner, and Speier (1980) have traced propaganda and communication in world history in three lengthy volumes covering the period from early humanity in Mesopotamia to the present day.

Propaganda is all about us, and we are, I believe, all caught up in it, whether we term it propaganda, persuasive discourse, advertising, or subliminal seduction. It can be very subtle and seductive, or it can be overt, out and out manipulation or coercion.

Although the term, propaganda, has been around for a long while, the emphasis has changed. The root of propaganda is propagate, meaning to root or set down. In fact, as Biddle (1932) notes, "the word propaganda was first used to describe the mission work of the Catholic Church" (p. 20). It is only recently that the negative or derogatory connotations of the word are being stressed. Doob (1966) notes that "propaganda can be called the attempt to affect the personalities and to control the behavior of individuals toward ends considered unscientific or of doubtful value in a society at a particular time" (p. 240).

Propaganda, Politics, and Education

Propaganda is intimately linked with education, especially literacy education. Biddle (1932) explains that along with the increase in literacy in the major nations of western civilization came the development of means of rapid and wholesale communication. He indicts this development in western civilization, however, saying, "Universal literacy and wholesale communication, both essential for large-scale democracy, have so far resulted in gullibility rather than in intelligence on the part of the masses" (p.2). Thus, propaganda is a pervasive reality--not limited to Nicaragua--which confronts the adult educator. Furthermore, propaganda has the potential to thwart adult educators' attempts to develop the human being to the fullest potential.

Another reality confronting the adult educator is the political nature of education. Freire (1973) made this clear through his reflection on praxis. "The fact that education is political is now becoming obvious to more and more students, teachers and parents" (Walker in Mackie, 1981, p.121). Samuel Simpson (1987), Managua Regional Director of Adult Education in Nicaragua, stated during his recent visit to the United States, "We couldn't separate politics and education because they are vitally linked in the reality, in the daily lives of the learners" (p. 5).

It is not always easy to tell the difference between propaganda and education. In fact, "education has often been the handmaiden of propaganda" (Biddle, 1932, p. 10). In trying to distinguish or discriminate between the two, Doob (1966) suggests that the "individual attempting to discriminate must be aware of the state of scientific knowledge on a subject and must be aware of the value judgments he is employing in his own thinking" (p. 241).

Propaganda and Literacy Education

If we were to look at the example of the literacy campaign in Nicaragua, we must consider our own value judgments, what was accomplished, and the perspectives of the indigenous educators. Simpson (1987) explains that "The illiteracy rate dropped from over 50 percent to just under 13 percent in five short months, an astounding accomplishment which was officially recognized by the United Nations" (p. 6). From a pragmatic point of view, the adult educator cannot simply condemn and dismiss the so-called "propagandistic" literacy campaigns in Nicaragua. The fact is that the program worked in dramatically reducing the illiteracy rate. However, that a great deal of the instructional materials used were clearly

propagandistic offends many adult educators in the United States. And yet Simpson contends that the grass roots participation, albeit propagandized, "will assure democracy and with it the development of our country's resources" (p. 5).

Consider, for a moment, the literacy campaign in the United States. Much hype and hoopla, especially electronically mediated, has failed to enlist broad participation of illiterate adults. The public campaign for literacy education often uses visual images which show the personal embarrassment of the illiterate adult for his or her inability to read. Or, advertisements seductively imply that literacy will bring better employment, greater wealth, and access to the "American dream" or the "good life." For examples, one need only view the television advertisements for the national PLUS campaign. Here, adult educators are confronted with another value judgment. Is this U.S. propaganda--of either embarrassment or promise of a better life--any less propagandistic than the Nicaraguan appeal for solidarity with the new democratic social order?

Cultural Sensitivity

Literacy is much more than symbol manipulation. It is a lifetime process which, as Mackie (1981) notes, "is not acquired neutrally, but in specific historical, social and cultural contexts. . . . It is the means by which we comprehend, unravel and transform the reality in which we find ourselves" (p. 1-2).

Freire promoted genuine literacy rather than functional literacy. As Bee points out (in Mackie, 1981), "If a person is to become genuinely literate, as opposed to functionally literate, a quality of critical reflection must be engendered in the pedagogical methods" (p. 50). Not only must critical reflection be engendered, but cultural bias must be taken into account, as noted above. Aveni (1986) cautions, "If we desire to understand the meaning of literacy in the context of other cultures, we must be careful not to confuse our tools and methods, our aims and goals, our world or cosmic view, with those of the people we study" (p. 253).

And what of the literacy campaign in Nicaragua? Simpson (1987) describes a country that has been experiencing "a state of war for many years . . . underdevelopment and economic dependency inherited from the period of the dictatorship, as well as a massive foreign debt . . . making it . . . impossible to carry out even the most basic tasks required to implement an adult education program" (p. 2).

Faced with the reality of this situation, Nicaragua sought the active participation of the people through a national literacy crusade that was, as Simpson (1987) describes, "primarily a political project which had pedagogical implications" (p. 3). Simpson explained the process which saw 80 people test the materials and methods as pilot projects. Then "the

original 80 participants led workshops where they trained 600 volunteers. Through a process of multiplication, these 600 went on to train 12,000 and so on until eventually 100,000 brigadistas were ready to be sent out to all areas of the country" (p. 4).

Simpson (1987) goes on to explain how the literacy campaign was based on the experience and reality of the learner and how the Nicaraguan literacy process of work-study-work or practice-theory-practice is

participatory, collective, and democratic. Simpson promotes education as a responsibility of all citizens, noting, "This is specified in our constitution" (p. 6). Furthermore, "The development of these skills and the political structures which permit an active participation, as well as erecting the interest and motivation to participate, are central to our ideas about education" (p.3).

Clearly, from the perspective of this Nicaraguan adult educator, they have done nothing wrong in terms of the campaign. Could it be that our own perception is colored by our western, capitalistic perspective, so much so that we are unable to break out of it? As Mezirow (1978) notes, we are caught in our own history and reliving it.

Thus far, we have stated that propaganda is all around us. It is intimately connected with education, and both are intertwined with politics. In terms of judging the use of propagandistic approaches in adult education, especially considering the cases of the literacy campaign of Nicaragua, we must have a cultural sensitivity. In addition, we must be aware of ourselves, our values, dispositions, motives, and goals.

Contextual Analysis

Another important point for the adult educator to factor into this mix is the fact which Rank (1974) points out: "Language manipulation is a neutral, natural human activity and . . . any 'goodness' or 'badness' depends on the context of the whole situation. . . . There is no neutral transfer of information; all communication involves a basic selection/omission process by which we intensify or downplay" (p. 216). We select or omit information and emphases based on personal and corporate values.

Contextual analysis is a key element in forming a judgment about propaganda. This analysis, while critical, is difficult. Rank (1974) explains that "because such judgments are demanding, complex and often tentative, they are much less emotionally satisfying than the 'certitude' afforded by relying upon an a priori judgment that language manipulation is bad in and of itself" (p. 219).

Critical thinking--about ourselves, our world, and what is going on around us--seems to be part of the answer to interpreting the use of propaganda in adult education. As Biddle (1932) notes, "to make people more critical and discriminative in their thinking is an educational task . . . . The achievement of intelligent, discriminative thinking has been historically one of the most important aims of education" (p. 8).

Part of the development of critical, discriminative, thinking is providing contact with a variety of points of view. This is all the more difficult given that propaganda mitigates against critical thinking. And, as mentioned earlier, propaganda is all around us, across contexts and across cultures. Yet, "if democracy is to improve and become more practical, it must be increasingly based upon critical, intelligent thinking on the part of the masses" (Biddle, 1932, p. 6).

Task of the Adult Educator

With these explanations as background, I believe that there are several tasks facing the adult educator with respect to propaganda. The first task of the adult educator, it seems to me, is that of becoming critically aware. This awareness begins with the realization that education is political and that education, politics, and propaganda are intertwined. Adult educators must be aware of who they are and how they are shaped by their own history and cultural assumptions (Mezirow, 1978). Awareness, or reflection, is only the first step. The next step, as Freire (1973) outlines, is praxis. What do you do with what you know?

"Teachers should not act as the press agents or the public relations staff of any administration, any government, any corporation" (Rank, 1974, p. 232). This is a tough judgment which is not just for someone "out there" in some communist country somewhere. For as Rank observes, "In a capitalist economy, corporations have a vested interest in promoting trust and confidence as great virtues" (p. 232). This promotion can be very seductive and is usually fueled by megabucks. Moreover, over 50 years ago, Biddle (1932) warned that "There is keen competition between propagandas, as in the sale of toilet articles or cigarettes" (p. 2).

Second, adult educators need a clear sense of the purpose and goals for the educational activity in which they are engaged. While the diversity of the field of adult education has been affirmed by many, there is growing consensus on some of the goals of adult education. The promotion of equality, human dignity, and worth . . . the act of helping adults live more successfully and the facilitation of discriminating and critical thinking have been claimed as goals and purposes for adult education by many educators across various contexts (Darkenwald & Merriam, 1982). Adult educators must be aware of corporate goals as well as personal motives.

Third, adult educators have a responsibility to work towards humanization (Freire, 1973). Part of this "humanizing" process includes fostering openness to different worldviews. McKenzie (1987) suggests that the development of this openness is sorely lacking in adult education. Worldview, he says, "means contemplation of the world or a view of life . . . . The positions we take on ultimate and penultimate meaning-issues, together with what we know, constitute the substance of our worldview" (p. 231).

To be human is to deal with questions of ultimate meaning (McKenzie, 1987). "Worldview construction can be supported directly and explicitly by education activities. Exposure to different worldviews through the discussion of themes selected by the learners can stimulate and re-orient the thinking of learners" (p. 235). This is one counter that adult educators can offer to the numbing, uncritical gullibility that all propaganda imposes. Whether it be the advertisement of a product or service with implicit promises or the out and out dogmatic declarations of a revolutionary government, each wears down the audience and engenders gullibility.

Fourth, adult educators must be aware of the propaganda within the field. For example, Gilligan's (1982) challenge to the wholesale acceptance by educators of the human development theories of Kohlberg and Erikson has been a shock to some, a scandal to others, and a ray of hope for many. Propaganda is also promulgated through the promotion of biased research, research in which there is a "deliberate effort to influence outcomes of controversy in favor of a preference" (Lasswell et. al., 1980, p. 5).

The key to the resolution of this issue seems to be threefold. First, adult educators must have an understanding of the world of propaganda in all its pervasiveness, all its overt and covert seductive power, and all its aims. Secondly, adult educators must have a keen critical self-awareness and an openness to other worldviews. The American approach is not the only or always the best in every situation. While we herald democracy, Simpson (1987) also notes that the Nicaraguan approach to participation "will assure democracy and with it, development of our country's resources" (p. 5). Thirdly, and perhaps most important, the entire issue of propaganda must be seen within the parameters of contextual analysis, realizing that "Value judgments concerning the ethical or moral aspects of language manipulation have to be made in context with the whole situation" (Rank, 1974, p. 219).

REFERENCES

Aveni, A. F. (1986). Non-Western notational frameworks and the role of anthropology in our understandings of literacy. In M. E. Wrolstad & D.F. Fisher (Eds.), Toward a new understanding of literacy (pp. 252-280). New York: Praeger.

Biddle, W. W. (1932). Propaganda and education. (Doctoral dissertation, Teachers College, Columbia University).

Darkenwald, G. & Merriam, S. (1982). Adult education: Foundations of practice. New York: Harper & Row.

Doob, L. W. (1966). Public opinion and propaganda (2nd ed.). Hamden, CT: Archon Books.

Freire, P. (1973). Pedagogy of the oppressed. New York: Seabury.

Gilligan, C. (1982). In a different voice. Cambridge, MA: Harvard University Press.

Lasswell, H. D., Lerner, D., & Speier, H. (Eds.). (1980). Propaganda and communication in world history (Vols. 1-3). Honolulu: University Press of Hawaii.

Mackie, R. (Ed.). (1981). Literacy and revolution: The pedagogy of Paulo Freire. New York: Continuum.

McKenzie, L. (1987). Worldview construction and adult education. Adult Education Quarterly, 37, 230-236.

Mezirow, J. (1978). Perspective transformation. Adult Education, 28, 100-110.

Rank, H. (Ed.). (1974). Language and public policy. Urbana, IL: National Council of Teachers of English.

Simpson, S. (1987). Adult education in Nicaragua: Adapting and growing in a changing reality. New Horizons In Adult Education [Electronic journal], 1, (1), 1-15. Syracuse, NY: Syracuse University.

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THE INFORMING OF ADULT EDUCATION BY ADULT DEVELOPMENT

by

Nancy E. Hagan

Abstract: Theory-building and research conducted in the field of human development can inform the process of adult education. Three broad perspectives of human development--stage theory, phasic approaches, and the combination of the two--are discussed in terms of the insight they can bring to the field of adult education. Works of major theorists in both fields are considered in order to highlight the discussion. Contrasts are drawn between the development and education of adolescents and of adults. General recommendations for adult education are made, and a call is issued for further strengthening the ties between the fields of human development and adult education.

Throughout life, human beings change and grow in the context of the external environment, social influence, increasing physical maturity, and the uniqueness of the self. When change is enduring over time--resulting not only in new patterns of behavior but also in novel ways of making sense of and relating to the world--it can be called development (Conger, 1977; Havighurst, 1948). Development is ongoing throughout childhood and

adolescence and, depending on one's theoretical perspective, continual throughout adulthood. The composition of development varies throughout life, with developmental needs, capabilities, considerations, and tasks differing from one point to another. Subsequently, the dynamic relationship between human development and education varies from one developmental period to the next. Nevertheless, human development and education can continually inform each other through the insights and impacts they have on the individual.

A given period of life can be described, in part, by the characteristic issues of central importance to individuals during that particular period. These issues are developmental to the degree that their consideration and resolution prompt lasting change. Moreover, developmental issues can be viewed from either a phasic or a stage perspective. The phasic approach understands development as "a response to age-related changes in the conditions of adult life . . . adult development is concerned with the making of creative, transformative responses to age-related changing conditions of adulthood" (Lasker and Moore, 1979, p. 24). (Although much phase theory deals with adulthood, as in Levinson's 1978 work, "human" could substitute in the above definition for "adult.") Central concerns or developmental issues are seen as fairly consistent across an age group, since they are directly age-related. Phase issues revolve around the conditions of a period of life. Examples are the development of commitment to career and mate in early adulthood and the coming to terms with retirement in later adulthood. The phasic approach focuses on the issues that arise directly from the interplay of age-related change in the conditions of an individual's life.

Phasic approaches to development are still relatively uncommon, Levinson's being the predominant example. As his work was done with only a small group of adult men, there remains considerable room in the field for others who wish to investigate this perspective. This approach has not been taken with adolescents, although Lasker and Moore (1979) argue that Erikson's theory of psychosocial development and its focus on the formation of identity during adolescence is as much phasic- as it is stage-oriented.

Stage approaches offer the most widely held alternative to the phasic explanation of development across the life span. Stage theories "involve the identification of levels of maturity that are relatively independent of the changing conditions of . . . life. The stage approach emphasizes that . . . the changing conditions are experienced and responded to differently depending upon the psychological development of the individual involved (Lasker and Moore, 1979, p. 24)." In contrast to the phase approach, changing life conditions provide part of the content of development; they are not its central theme or impetus.

Stage theories build on a concept of epigenesis, or the sequential, hierarchical, integrated, and increasingly complex nature of an organism's development (Erikson, 1968). Development is viewed as discrete and distinguishable from stage to stage, as well as directed toward increased complexity and flexibility. At each new stage of development, the

individual displays characteristic patterns or capabilities of which s/he would have previously been incapable (Lasker and Moore, 1979). Process and function are thus enhanced with each transition to a new stage of development. Numerous scholars have formulated stage theories of development. Among the best known are Freud's theory of psychosexual development, Piaget's theory of cognitive development (1967), Kohlberg's (1972) and Gilligan's (1980) work on moral development, and Loevinger's work concerning the development of the ego.

Empirical research has been conducted to test these theories, with Piaget, Kohlberg, and Gilligan doing the most in this regard. Moreover, Piaget and Kohlberg, as well as some of their followers, have attempted to make direct links between their beliefs and educational practice. Piaget's work, for example, has had considerable influence on the education of young children and youth, and Kohlberg (1972) made a direct and concerted effort to connect the aims of development and education. Nevertheless, there remains ample room for speculation and research in this area.

A third theory-guided perspective on life span development appears to almost bridge the stage and phase approaches. Havighurst's concept of the "developmental task" (1948; 1953) relates, like aspects of both stage and phase theory, to the intersection of physical growth, environment (what Havighurst refers to as "the cultural pressure of society", 1948, p. 7), and the individual or self (p. 8). The concept of the developmental task is central to Havighurst's theory, and he defines it as "midway between an individual need and a societal demand. It partakes of the nature of both" (1948, p. 4). Here, he seems to mediate between the "changing conditions," noted by the phase theorists, and the "intrinsic organization" attended to in the stage approaches.

Havighurst resembles the phase theorists in his focus on the skills and roles to be learned as part of an age-related developmental task. He pays much less attention to the underlying process of task resolution than would a stage theorist. His focus, like that of the phase theorists, centers more often on the content and essence of the task at hand rather than on the changing nature of the individual's capabilities or psychological structures. His interest appears to lie on the content side of the content-process tension inherent to development issues. Furthermore, Havighurst is unable to transcend his own class and cultural perceptions as he attempts to delineate the "biological, psychological, and cultural" bases of each task, as well as the task's "educational implications" (1948, p. 6). Yet, the limitations of his perspective and his language should not detract from his central message that the lifelong development of human beings can be considered in a manner that would facilitate the process of education.

Havighurst presents the idea of the "teachable moment," that point when "the body is ripe, and society requires, and the self is ready to achieve a certain task" (1948, p. 8). It is here that the individual is most likely to learn a given task. In essence, Havighurst is promoting the idea of the critical period during which the learning of a developmentally

appropriate task is most sensible and likely. Havighurst believes that, through the study of human development, educators can foster the coinciding of developmental tasks with educational tasks, thus promoting the acquisition of both and making education more relevant for students. Havighurst implies that there is an optimal time to teach and to learn a certain task and that one of the roles of education is to discover this optimal period and develop curricula and activities accordingly. This is another way of stating that one of the foci of education is learner relevance; educators have a mandate to begin with the learner where he or she is. Education serves the dual purposes of meeting current developmental needs and supporting new growth.

In addition, Havighurst believes that education can be "conceived as the effort of society, through the school, to help the individual achieve certain of his developmental tasks" (1948. p. 8). Education has a larger role to play than simply the development of the individual; it is also the representative and conveyer of the larger social will. Education is seen as both an impetus and a response to development. Although Havighurst confines his view of education to that of formal schooling, education could be seen to have the same roles, even when it is more broadly defined.

In a direct attempt to link perspectives, Lasker and Moore (1979) describe the relationship of education to human development in terms of the two approaches: phasic and stage. The authors claim that looking through a phase theory lens provides one means of determining the impact of an educational program on adults (and presumably on adolescents). "We in the education profession tend sometimes to assume that all educational intervention contributes positively to adult lives. This may be true, but it is an assumption that is not well tested" (p. 18-19). Educational efforts can be viewed in the context of their ability to help the individual address the changing conditions of life. Education should contribute to the individual's capacity to deal with age-related changes in the life situation. For instance, courses and workshops can be offered to young people who are in the process of making career choices, to first-time parents learning how to interact and care for an infant, and to retired people eager to learn leisure time activities. Educational opportunities should meet the individual's current or imminent developmental needs. In essence, education that is guided by phase theory is a learner-centered, needs-based approach.

Lasker and Moore (1979) describe two distinctive ways in which stage theory can be used to inform educational programs. These they call the "matching" and "pushing" roles of education. The first involves "matching instruction to the learner's stage" and presenting material "in a form that is most consistent with the student's system of thinking--and thus easier to incorporate" (Lasker and Moore, 1979, p. 54). A corollary of this view is that any problem, confusion, or disinterest on the part of the learner probably arises from a mismatch of educational message and the learner's mode of encoding meaning. When a learner's "stage" is met by educational message, learning is facilitated.

With adults, "the matching approach is predicated in part on the observation that there is no guarantee of periodic stage change in adulthood" (Lasker and Moore, 1979, p. 54). Once the stage level of the adult is 'discovered' by the educator, that level can be used as the grounding point for all educational experience. This process resembles the phase-guided approach in that it is learner-based. Here, however, the basic starting point is process-oriented, while with the phase approach it is content-directed. Moreover, this perspective is often used to guide educational programs and curricula for children; although, when used with children, the approach is not predicated on the assumption that learner needs will remain static in any fundamental way.

A second approach discussed by Lasker and Moore (1979) presupposes change and growth, even in adults. The "pushing" perspective holds that a primary purpose of education is development or movement from one stage of meaning-making to another. Education is used as the impetus to change "the way in which all previous knowledge is actively engaged and brought to bear in the construction of meaning" (Lasker and Moore, 1979, p. 54). Kohlberg is a spokesman for this type of educational purpose, and he and his colleagues have attempted to design secondary school curricula and activities in such a way as to promote stage change in the moral development of adolescents (Kohlberg and Mayer, 1972). Perry (1981) has a similar intent with his scheme of intellectual growth and stage change at the college level.

Kegan (1982) advocates both the matching and the pushing agendas.

> The single most important contribution developmental theory makes to schooling is its exposure of the child's natural curriculum,' an active process of meaning-making which

> informs and constrains the child's purposes. Rather than seeing the child as a passive receptacle to whom appealing curricula must be brought in order to initiate the learning experience, the developmentalist urges curriculum designers and teachers first to recognize the agenda upon which the child is already embarked and which the teacher can only facilitate or thwart, but not himself invent (p. 255).

Kegan's focus on the child could readily be expanded to include the adolescent and the adult, for the process as he describes it is life long.

Clearly, the nature of an educational program must be linked, at least in part, to the developmental needs of the learners. This link may be on the content level, as Havighurst and Levinson suggest, at the process level, as Kohlberg and Perry would have it, or in some combination of both, as Kegan advocates. A number of adult educators, most notably Kidd (1973) and Knowles (1973; 1984), echo the developmentalists in their views that the educational experience should be distinctive between learners at different periods of life. Indeed, although debate continues as to

educational purposes and methods, empirical work is sorely needed to test the theories described above. Most theoreticians, researchers, and educators, however, now agree that distinctions in developmental status dictate distinctions in educational experience. The differences between adolescents and adults serve as markers to different educational procedures and intents.

Adolescence, particularly as it exists in Western, industrialized countries, is marked by the search for identity, a sense of the self that is defining and distinctive (Erikson, 1968). Part of the process of identity formation involves trying out a variety of roles, commitments, and relationships. The period is marked by experimentation and questioning (Havighurst, 1948; Erikson, 1968; Conger, 1977; Hopkins, 1983). The adolescent moves from a childhood dependency on parents and other adult authorities toward a concomitant self-reliance and group affiliation. A major issue to be addressed by the adolescent is where s/he stands as unique in the world. The task is one of identification and integration of the various parts of the self.

Changes in physical and intellectual capacities underlie this period of questioning and self-awareness. With the onset of puberty, the adolescent is forced to begin to consider his or her place in the adult world. With this realization of new potential comes the need for clarification of that potential. Furthermore, increased ability to take the perspective of another, to hypothesize and to analyze with or without the development of full formal operations (Piaget, 1967), enables the adolescent to move from concrete experience toward the realm of the possible. This is manifest largely in the adolescent's growth away from adult-established arenas of thought and action into avenues largely of his or her own construction and determination.

The newness and gradual nature of the development of intellectual, social, experiential, and personal capabilities present changing needs throughout adolescence. Boys and girls are likely to be variously oriented to issues of identity, autonomy, and role choice, largely in terms of their distinctive rates of physical development and their culture's overarching definitions of gender-appropriate roles and behaviors. However, in both sexes, the ability to intellectually hold all possible alternatives at a given time forms the "complement to the need of the young person to develop a sense of identity, for from among all possible and imaginable relations, he must make sense of ever-narrowing selections of personal, occupational, sexual and ideological commitments" (Erikson, 1968, p.245). Therefore,

changes and growth in various arenas within the individual are both mutually supportive and challenging.

This process of search and selection forms the context for the educational experiences of adolescents. Yet, the formal school systems of Western states pay various degrees of heed to this adolescent agenda. Most educational systems in Europe and North America force the adolescent to

choose a curriculum and a course of study that will have long-term implications. For many, this type of decision must be made before they are ready, with the result that he or she may shut off exploration and foreclose on one aspect of identity formation (Erikson, 1968). Similarly, those who drop out of school and begin work at an early age may leave the formal educational system without having had any support from it in their testing of occupational options and searching for identity.

The Western formal school system can best serve adolescents by providing them the same kind of environment they seek and construct on their own. That is, the school should foster a range of academic and social opportunities. Adolescents should be afforded the chance to explore changing interests, goals, and tentative commitments in academic, vocational, social, and personal aspects of the developing self. Moreover, they should be supported by the school in their attempts to integrate these components of the growing identity. This educational agenda is both content- and process-oriented; it is responsive to adolescent issues and needs and provides an impetus and context for further growth.

The school is unique in its capacity to do this for the adolescent, for part of its nature is to provide a familiar context while, at the same time, to demand change. Inherent to the process of education is the tension of growth and constancy, authority and individuality, structure and freedom. The parallel tensions within the developing adolescent can be played out within this larger contextual flux. An authoritative or democratic system of schooling, in contrast to the currently predominant authoritarian mode, would foster this type of educational process. Within such an ideal system, the adolescent would be increasingly able and encouraged to set "his own goals and choose his own methods to reach them," and in so doing, develop "independence and responsibility" (Muus, 1962, p. 102). This type of system would essentially represent the type of environment that the adolescent seeks and creates on his or her own when afforded the opportunity. Ideally, the formal school system should do the same.

This educational process of affirmation and stimulus is essentially the same for adults, although its form is distinctive in light of the separate developmental needs of adults and adolescents. Adults primarily differ from adolescents in that they have made commitments to an identity and to a variety of social roles and obligations. Most adults are in the process of fulfilling rather than forming an identity, ideology, or set of roles. Nonetheless, "commitment" and "affirmation of identity . . . becomes a life long process, rather than an unchanging status" (Hopkins, 1983, p. 428). The adult is not a flat, static personality, forever bound to the self developed during adolescence; the adult continually reassesses and may change his or her interests, vocation, social, and personal roles, relationships, and commitments. Change may occur at the stage level or within a given stage. Even most stage theorists would not hold that constancy of stage means absence of growth. Nonetheless, since any change in adults is predicated on the earlier completion of identity formation, a sense of self and self-knowledge guides the adult learner in a way that it does not the adolescent.

Many adults enter the learning situation with a self-assurance and self-directedness unknown to younger age groups. This sense of self along with the adult's repertoire of life experiences should provide the starting point for adult education. In light of this sense of identity, the adult is likely to be goal oriented and to have a defined purpose to his or her educational endeavors. This stands in contrast to the adolescent, who is more apt to see education as a socially prescribed means of putting in time prior to doing what he or she really wants. The adult learner is usually a voluntary participant in a nonformal or informal educational system, while the adolescent is often a conscript in the formal educational system. All of these factors, developmental and situational, combine to create distinctive processes of adult and adolescent education.

As Knowles (1970) and Kidd (1973) stress, the adult learner must be met on his or her own terms, for indeed, s/he brings terms--guided by autonomy and identity--to the educational setting. If the educational curriculum, process, or agenda is imposed on the adult to the neglect of these terms, the education is likely to be of little value. Again, what is implied is an educational process that begins with the developmental needs and structures of the learner. With adults, this implies consideration for the experience, self-direction, and goal-orientation that the learner brings to the learning situation. In essence, this is no different from the respect for the adolescent or child learner that was called for previously in this paper. The distinctions between andragogy and pedagogy lie not in the nature of the attention given to the learner and his or her needs, but in its direction, focus, and form. Attention to the adolescent is paid at the level of the developing self; for the adult, attention should be paid to the developed self. Educational process is subsequently influenced and directed by these perspectives which are distinctive in content but not intent.

The process of adult education must be one of greater collaboration and mutuality than that of adolescent education, due primarily to the nature of the adult learner as described above. However, this, too, is a difference in degree and not essence, for all educational experiences should be grounded in mutuality and exchange. Adult education is less a transmittal of knowledge (Knowles, 1970) and more a pattern of discovery and reciprocity than is the education of adolescents. This process of discovery may be either self-enhancing or self-transforming; it may involve either change or development. Ideally, adult education is democratic, experientially based, oriented toward the continuity of growth, and reliant upon an interaction between the internal and the external (Dewey, in Knowles, 1973, pp. 79-82).

Ultimately, and as Dewey intended, all education, including that of children and adolescents, should be the above. At the most basic level, the education of children and adults are but different aspects of the same process. Each aspect, however, is marked by different procedures, goals, intents, and practices. Basically, phase and stage theories, as well as meldings of the two, are useful to adult educators in the degree to which they assist them in their efforts to offer learner-centered education. Research and theory emerging from the three different perspectives on human

development can continue to be used to inform and strengthen the educational process along all points of the continuum and throughout the life span.

REFERENCES

Conger, John, J. (1977). Adolescence and youth. (2nd. ed.) New York: Harper and Row.

Erikson, E. H. (1968). Identity: Youth and crisis. New York: W.W. Norton.

Gilligan, C. (1982). In a different voice. Cambridge, MA: Harvard University Press.

Havighurst, R. (1948). Developmental tasks and education. Chicago: University of Chicago Press.

(1953). Human development and education. Essex, England: Longmans, Green and Co.

Hopkins, J. Roy. (1983). Adolescence. New York: Academic Press.

Kegan, R. (1982). The evolving self. Cambridge, MA: Harvard University Press.

Kidd, J. R. (1973). How adults learn. New York: Association Press.

Knowles, M. (1970). The modern practice of adult education: Andragogy versus pedagogy. New York: Association Press.

(1973). The adult learner: A neglected species. (2nd ed). Houston: Gulf Pub. Co.

Knowles, J. et al. (1984). Andragogy in action. New York: Jossey-Bass.

Kohlberg, L., & Mayer, R. (1972). Development as the aim of education. Harvard Education Review, 42, 426-434.

Lasker, H. and Moore, J.F. (1979). Current studies of adult education: Implications for education. Cambridge, MA: Harvard University Press.

Levinson, D. et al. (1978). The seasons of a man's life. New York: Knopf.

Loevinger, Jane. (1980). Ego development. San Fransisco: Jossey-Bass.

Martin, E. C. (1972). Reflections on the early adolescent in school. In J. Kagan and R. Coles, (Eds.), 12 to 16: Early Adolescence (pp. 180-197).

New York: W.W. Norton and Co.

Muus, R.E. (1962). Theories of adolescence. New York: Random House.

Perry, W. (1981). Notes from lecture, Harvard University.

Piaget, J. (1967). Six psychological studies. In D. Elkind (Ed.), Six Psychological Studies. New York: Random House.

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PROCEDURES FOR WRITERS IN THE FIELD OF EDUCATION: HOW TO MAKE YOUR PUBLICATIONS MORE CONSISTENTLY ACCESSIBLE WITHIN COMPUTERIZED INFORMATION DATABASES

by

Judith Gwinn Adrian

Abstract: Educators writing documents or articles for publication in professional and scholarly journals desire to have their writing read and cited. Today, as a part of achieving this end, publications need to be easily accessible through computerized searching (online and CD-ROM) in databases such as ERIC. There are specific techniques for achieving this. The trend toward end-users doing their own computerized information retrieval and the implications this has for educational writers are discussed, and five hints are given for writers in the field of education: 1) having a clear and unambiguous title, 2) providing a narrative abstract or annotation, 3) citing authors' names in a consistent format, 4) selecting appropriate words for the title and abstract, and 5) furnishing an

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informative document title page.

Introduction

In adult education, as in other fields, we are feeling the effects of what John Naisbitt defined as the Information Society (Naisbitt, 1982). As increasing amounts of information are available to educators, the problem becomes one of access to appropriate information; for the writer, the question becomes, "How can I make the document or journal article or dissertation I am writing most easily accessible to all who will use it in their practice, their research, their teaching?"

The Increasing Number of End-users

Computer-assisted bibliographic searching is becoming a matter of fact for educators. Progressively, more practitioners and researchers are using existing database systems to gain access to information. The database producers call these people "end-users" as opposed to "intermediaries" such as information specialists and reference librarians. Dialog, the largest of the database vendors, surveyed their customers in 1986 and found that, of the 75,000 users, 85% were intermediaries. There were, however, 18,000 new sign-ups during the year, and 80% of that group were end-users--people doing their own searching (Summit, 1987).

There are a variety of reasons for this expansion in the number of end-users. The availability of microcomputers and modems is a major one. Low cost, or even free access to databases such as ERIC on CD-ROM, is another (the entire collection of ERIC, updated quarterly, is available on compact disks through some university libraries at little or no direct cost). Further reasons for expansion in the number of end-users are the increasing variety and specialization of databases and the greater number of full-text articles available online. Full-text databases are more able to provide some of the answers an end-user is seeking rather than just the sources or citations that may lead to these answers. Ironically, it requires a greater understanding of the concepts of computerized searching to locate information in full-text databases than it does to search the bibliographic databases like ERIC which, for example, do not give users access to the complete text of articles or documents.

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Frustrations End-users May Encounter

End-users are often unfamiliar with the use of controlled vocabulary and the concepts of Boolean logic used by professionals to search for information on computer-accessed databases. They may be frustrated as the number and variety of databases increases. Determining which databases are most appropriate takes time. In the field of adult education, documents and articles from education, psychology, sociology, business, medicine--to name a few--are pertinent. And, once the most appropriate databases for a given topic are located, a well designed search strategy in one database is generally not transferable to another. While some databases, like ERIC, use controlled vocabulary to index their articles, others rely on subject categories or other codes to index the writings. It is possible to search free-text in databases, asking the computer to search for specified words or numbers appearing anyplace in the article record (e.g., the title, the descriptors, the abstract). The results of such a search, however, are likely to be less comprehensive than the findings of a well organized search using the specific tools developed for each of the databases.

Also, beginning searchers may not realize that many databases include few books or copyrighted materials in their collections. ERIC, for example, does not include commercial, hard-bound books. Additionally, copyright restrictions on some materials prohibit reproduction of the writings. Within the ERIC collection, 1 1/2% of their approximately 600,000 documents and articles falls into the category of copyright restricted materials. Such writings are selected for inclusion, however, when it is determined that they make a major contribution to the field of education. Reproductions of these writings, however, are unavailable through the ERIC system (telephone interview with Ted Brandhorst, ERIC).

Database Vendors are Working to Ease End-user Frustrations

Database vendors are making changes that will assist end-users in searching. To encourage practice of search techniques, the BRS Colleague system, for example, now provides a reduced-cost, practice service on subsets of four databases in the medical and business fields. Online help is also available with this system as are the new feature of automatic searching for plurals so that, when the end-user enters the word child, chile and children are both automatically entered. A further example within the BRS system is the database, TERM, which lists "controlled vocabulary, synonyms for concepts in the social and behavioral sciences" (BRS, 1988). These sorts of responses to end-user frustrations will, I think, increase the general use of the online systems, thus allowing greater access to specific educational documents and articles.

Providing Broad Access to Publications

What components of the writing process can the writer control in order to meet the goal of being more easily located via computerized bibliographic or full-text database searching by end-users and intermediaries?

CREATING A CLEAR AND UNAMBIGUOUS TITLE: Titles serve as the primary retrieval system for selection of relevant citations. An intermediary will locate articles or documents on a given subject and freely give the researcher a listing of titles. In most cases, a list of titles can be printed at a lower cost than a list of complete document/article citations and abstracts or annotations.

A novice end-user is likely to search free-text, essentially requesting that the computer look for the designated words (whether these are descriptors or jargon or plain language) in all relevant fields: the title field, the descriptor field, and the abstract/annotation field. Again, it is likely that the first method used for selecting relevant articles or documents will be the review of the existing titles.

A useful title is one that is descriptive and gives concise information on the article, often with further explanation or detail of the main idea in a subtitle. (Isn't it written some place that titles in education MUST include a colon?) Depending on the nature of the article (research, editorial, etc.), the questions of what, how, who, where, and when are often asked in the searching process. Those that are pertinent should be answerable from the title. A title which gives insufficient information or one which is overly innovative will not provide the necessary content clues and may, in fact, be ignored by the intermediary or end-user.

John Dobson researched the problems of searching in the ERIC database for relevant professional journal articles on evaluation in adult education. He found that most titles could answer the questions, "What kind of evaluation took place, and how was the research conducted?" The answers to "who" and "where" appeared less often; "why" and "when" questions, on the other hand, were seldom answerable from the title (Dobson, 1983).

PROVIDING A NARRATIVE ABSTRACT OR ANNOTATION: The abstract or annotation is another crucial factor in the selection of a document or journal article. On most computer-accessed databases, these synopses expand--well beyond what can be obtained through reading the title and the descriptors--the information the searcher or the end-user has about the article . (Not all databases abstract or annotate their documents or journal articles, however.)

The abstract/annotation should include a statement of the problem, procedures used, findings, and conclusions (as applicable to the subject of

the article). Additional information, beyond that in the title, on what, how, who, where, and when would increase the chances of relevant articles being located by researchers using computerized, database-oriented techniques. Also, if there is an extensive reference section in the article or document, the abstract should mentioned it.

ERIC writes 200-word abstracts for documents and 50-word annotations for journal articles and encourages authors to write their own abstracts which ERIC may then use, modify, or ignore (if the abstracts are judged inadequate). The chances are that any such author contributions will be used in one way or another (telephone interview with Ted Brandhorst, ERIC). The abstract for this document, for example, could be rewritten as a 50-word annotation in the following way:

> End-users often access educational reports, articles for professional/scholarly journals, and dissertations through computerized inquiry (online/CD-ROM). This article gives five suggestions on writing procedures that allow more consistent information retrieval: (a) clear, unambiguous title; (b) narrative abstract/annotation; (c) consistent format for names; (d) word selection; and (e) informative title page.

CITING AUTHORS' NAMES IN A CONSISTENT FORMAT: This will alleviate the problem of missing some articles by one author because of variations in the use of a name. A search for writings by Cyril Houle, for example, will not necessarily turn up articles written by Cy Houle unless the searcher knows how to truncate the author's name (ask for various possible alternative spellings).

Use of authors' names during computer searches is also an area in which the researcher does not have full control; the available databases vary in their criteria for use of authors' names, and some will even rewrite a name to meet the internal requirements of that particular database. (ERIC, for example, records personal names exactly as written on the document or article.) If you have a relatively common first and last name, you may want to use your middle name, even a pen name, to make your name more unusual.

SELECTING APPROPRIATE WORDS FOR TITLE AND ABSTRACT: A professional searcher will use both descriptors and ordinary language to locate an article. A beginning end-user is more likely to ignore the descriptors and use the common, and possibly the faddish, language within his or her field. In the annotation example given under #2 above, the words or phrases, "online," "CD-ROM," "end-users," and "information retrieval," were specifically chosen for inclusion because they are currently used and, therefore, could increase the chances of this writing being located by someone engaged in free-text searching.

By using a limited number of "buzz words" and common terms in the abstract or annotation, an author acknowledges the dynamic development of language taking place in the field and provides one additional pathway for searchers to locate her or his writings. Those same words, however, will gradually become obsolete and ineffective as a method of retrieval in future years. Authors, accordingly, need to find a balance in the use of field-specific language to aid both current and future researchers.

Language in adult education, and in the social sciences in general, is a problem for researchers who use computer-mediated databases. A search for training in terminal care, for example, will produce very different results in an educational database on computers than it will in a medical database. Or the word, system (meaning a plan or scheme in both education and medicine), has an additional physiological meaning in medicine related to body systems such as the circulatory system. When writing the title and abstract of an article or document, it is important to consider the various meanings of words within other disciplines in which your article may have relevance. Moreover, a significant number of writings appear in more than one database.

ERIC encourages authors to submit suggestions for descriptors of their writings, even if the words are not currently used in the ERIC Thesaurus (telephone interview with Ted Brandhorst, ERIC).

FURNISHING AN INFORMATIVE DOCUMENT TITLE PAGE: The producers of the ERIC database have specific information they hope to see on a document title page. The availability of this information to their abstractors allows the document to be more completely indexed, again increasing the likelihood of the publication being located in a computerized search. The specific information they request, when applicable, includes the following:

a) Title/subtitle
b) Author(s)
c) Preparing institution
d) Sponsoring agency
e) Publication date (This is different from the quarterly, interim, or final report dates that would be included for a research report. If the document is a report on a contract, it should specify the inclusive dates covered by the report.)
f) Report number
g) Contract number
h) Series information.

Conclusion

Adult educators need to be aware of the dramatic changes taking place in the field of information technology and of the ways in which we can use this technology to access a very wide range of publications for our

planning, our classrooms, and our evaluations. Adult educators, even more than other professionals, must, I believe, be technologically proactive. We need to be involved in new technologies, thinking of how they can be innovatively used in educational situations and then acting on these normative ideas.

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By consciously using the procedures for writers mentioned above, we, as writers in adult education, can increase our chances of being effectively located within computerized databases and thereby expand the audience for--and potentially the use of--our information, knowledge, and ideas.

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REFERENCES

Apps, Jerold (1982). Improving your Writing Skills: A Learning Plan for Adults. Chicago: Follette Publishing Company.

Brandhorst, Ted (telephone interview). Director, ERIC Processing and Reference Facility, ERIC, 4350 East-West Highway, Suite 1100, Bethesda, MD 20804-4475.

BRS Colleague Reference Manual (January, 1988). BRS, 1200 Route #7, Latham, New York, 12110.

Dobson, John (1983). The problem of journal searching: The case of retrieving adult education evaluation articles. ERIC Document ED246-176.

Friend, Linda (1986). Identifying and informing potential end-users: Online information seminars. Online, Vol. 10, No. 1, January, pp. 47-55.

Gaul, Kathleen (1986). Learning to search: How people become database searchers. Online Review, Vol. 10, No. 6, pp. 355-357.

Goldman, Nahum (1985). Online research and retrieval with microcomputers. Blue Ridge Summit, PA: TAB Professional and Reference Books.

Jezierski, Kathleen (1978). Writer's guide to publication development. How to get your publication into an information retrieval system. ERIC Document ED164-799. Bureau of Occupational and Adult Education, Ohio State University. Columbus. pp. 1-26.

Kupferberg, Natalie (1986). End users: How are they doing? A librarian interviews six `do-it-yourself' searchers. Online, Vol 10, No 2, March, pp. 24-28.

Naisbitt, John (1982). Megatrends: Ten new directions transforming our lives. New York: Warner Books.

Summit, Roger (1987). Online information: A ten-year perspective and outlook. Online, Vol 11, No 1, January, pp. 61-64.

Tenopir, Carol (1987). Online education: Planning for the future. Online, Vol 11, No 1, January, pp. 65-66.

Tenopir, Carol (1984). To err is human: Seven common searching mistakes. Library Journal, Vol 109, No 6, April, pp. 635-6.

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F O R U M

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Note: The following is an exploratory paper written for a doctoral seminar concerning research and the nature of inquiry; it is not meant to represent an exhaustive literature review. Jerome Bruner's text, 'In Search of Mind,' was used as the initial focus for group discussion.

FEMINIST METHODOLOGY:A NEW WAY OF KNOWING?

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Introduction

In recent months, I have been trying to understand what characterizes feminist methodology, whether it can be distinguished from existing research methodologies, what feminist methodology offers to current conceptualizations of research, and how adoption of a feminist point-of-view might affect practice. This inquiry resulted from exposure: an audited gender course, a number of informal gender/sexism-related discussions, a brown bag feminist methodology presentation, a feminist scholarship colloquium. Although I had read feminist literature, I was previously unaware of the existence of a distinct "feminist methodology." I assumed that becoming familiar with the literature and participating in formal courses and informal discussions would provide answers towards (a) defining exactly what it is and (b) deciding whether or not it could, would, or should inform my future activities as a doctoral student or a practitioner.

My questions have not found easy answers. . . . Do women have "different ways of knowing" and speak "in a different voice"? Do women students have different pedagogical requirements? Do (feminist) women scholars offer more appropriate research models? Are men excluded from feminist proposals for educational reform? I decided to

use this paper as a means of exploring my own ambivalent thoughts concerning the impact of feminist scholarship upon research methodology. I have attempted to interpret feminist literature by a version of "inter-texting" and have used some of Jerome Bruner's recent thinking from Actual Minds, Possible Worlds (1986) to respond to feminist ideas concerning research paradigms and the nature of knowledge. From this perspective, I will examine several themes: knowledge creation and acquisition, qualitative and quantitative research paradigms, and problem-solving and problem-generation.

Have Feminist Scholars Defined a New Research Paradigm? (Or Are We Replaying the Qualitative vs. Quantitative Debate?)

Feminist scholarship examines aspects of women's lives which have not previously been brought to public consciousness. For example, historical revisionists attempt to account for the role of women by recreating accounts of our past, and equal rights advocates study the factors which prevent women--in spite of legal "equal opportunity"

mandates--from achieving societal access on par with men. Women's domestic responsibilities, our access to skill-training and development, and certain gender-specific variables related to self-concept all contribute to an absence of "equality of circumstance" (Du Bois et al., 1985).

Although a number of feminist writers use the terms, "feminist methodology," I believe they risk diluting very real concerns towards discriminatory social practices by reducing existing methodological feuds to gender issues. Reinharz (1983) suggests that currently accepted social knowledge stems from a male-dominated social universe, and because no theoretical scheme suitable for thinking about female experience exists, a "new baby," or a new methodology, needs to be born. She believes that the scientific method is not a logic but is, instead, a morality; new methods, therefore, become equated with immorality. Reinharz presents an "alternative or feminist" model which she compares to the "conventional or patriarchal" model. I am unable to see, however, a new, distinct feminist perspective; instead, a stereotypical view of quantitative, positivistic methodology is paired against a qualitative paradigm (for example, feminist research objectives are equated with development of understanding through grounded concepts and descriptions while patriarchal research objectives are equated with hypothesis testing). The contrasts are well-worn and lack any sort of uniqueness.

Quantitative research seems to be presented as implicitly and a priori anti-feminist. For example, Mies (1983) asserts the political aims of the women's movement contradict social science's theories and methodologies and that if we use these old methodologies, "they will again be turned into an instrument of repression" (p.120). (I am again discomforted by the crude portrayal of women as passive victims, and I also wonder what this anger towards positivistic methodologies implies towards our trust in our own abilities to perceive and actively participate in the world.) Rather than discarding one mode of thought, Bruner believes (a) cognition should not be contrasted with perception, emotion, and all nonlogical and nonlinguistic faculties; (b) we should view mind as an instrument for producing worlds; and (c) these worlds are themselves stipulations couched in symbol systems.

Bruner says this view of the world transforms research, for we would no longer attempt to find an "immutable" world but would instead be capable of exploring the "myriad of realities" created by both narrative and by science. He does not cast his analysis in terms of qualitative versus quantitative research or positivism versus feminism, but his ideas help to disarm the overly simplistic dichotomy we have developed to distinguish paradigms, create "camps," or establish professional reputations.

Why Are Some Feminists Anti-Theoretical?

Cocks (1983) suggests that the most radical feminist students are against theory because of (a) the immediacy and practical urgency of women's needs and (b) the equating of reason with authoritarianism and impersonality. She says feminist hostility toward theory rests on a presumption that theory itself is problematical in a feminist context due to its assumed association with manipulation, intimidation, domination, and the evasion of feeling. Feminists disdain theorists' detached, abstract, analytical mode of thought in favor of a "preoccupation with immediate experiences" and a "predeliction for personal solutions" (p.178). Cocks, like Bruner, believes that reason and emotion are--and have always been--internally related.

Why would women, while reacting against partriarchy, accept one of its most discriminatory cultural premises: Reason is in men's domain and emotion in women's? Bruner (1986) says it is "perilous" to look at intellectual growth only in terms of increasing abstraction, for the language of education cannot be an "uncontaminated" language of fact and "objectivity" (p. 129). Intellectual growth involves both reflection and "taking a stance," in Bruner's view. Feminists who promulgate immediate experience and feeling while rejecting analytical thought have accepted a false dichotomy. Furthermore, although the dichotomy between reason and emotion has been played out in our society's gender-arena, its genesis transcends gender relations.

Kellar (1985) similarly criticizes the solution of radical feminists who reject science altogether due to its deep-rooted androcentrism: "By rejecting objectivity as a masculine ideal, it simultaneously lends its voice to an enemy chorus and dooms women to residing outside of the realpolitik modern culture; it exacerbates the very problem it wishes to solve" (cited in Kellar, 1985, p. 178). Kellar's proposed alternative includes the reclamation of science as a "human instead of a masculine project" and the "renunciation of the division of emotional and intellectual labor that maintains science as a male preserve" (p. 178).

Paradigmatic and Narrative Modes of Thought

Bruner contrasts two modes of thought. The paradigmatic is a top-down, theory-driven approach to reality which seeks an understanding of general causes and is regulated by a language of consistency and noncontradiction. This mode, which typifies scientific thought, is regulated not by empirical data but by a set of

principled hypotheses which Bruner describes as "a set of possible worlds that can be logically generated and tested against observables" (p.13). The narrative, bottom-up approach, begins from the particular and deals with intention, actions, and consequences. It seeks to apply "timeless miracles" to particular incidents, to "locate experience in time and place" (p.13). Narrative imagination leads to gripping stories and believable accounts; paradigmatic imagination, in contrast, is the ability to "see possible formal connections before one is able to prove them in any formal way" (p.13).

Bruner cites Ricoeur as arguing that the narrative stems from a concern for the human condition and adds the observation that narratives must build both action--with agents, intentions, and goals--and consciousness (characters know, think, and feel). Bruner further asserts that these two modes do not intersect. The narrative mode cannot "falsify" the paradigmatic, and the paradigmatic cannot invalidate the narrative (a similar analysis is offered by Jean-Francois Lyotard in The Postmodern Condition: A Report on Knowing).1

I wondered, while reading these descriptions of thought, if some feminist methodologists might futilely be attempting to falsify the paradigmatic mode via a more narrative-type mode of thought. I disagree that anything smacking of patriarchy or "male" modes of behavior and thought must be challenged and changed; I cannot so neatly separate and label the male versus the female. Reactionary stances become emotion-driven, as Cocks suggests, causing women to claim, as an attribute, the very limitations of thought ascribed by sexist thinking. Rejection of analytical thought weakens our ability to describe and explain discriminatory practices and to differentiate the good from the bad, the innocuous from the harmful. I would prefer to adopt Bruner's suggestion: Rather than asking "is it true," we should adopt a more powerful logic which asks "in what kind of possible world would it be true?" In other words, we do not need to prove or disprove one reality, one truth (especially by pitting emotion against reason, intuition against empirical proof, narrative against paradigmatic thought). Using reason guided by our value stances, we can employ qualitative and quantitative research methodologies in order to examine the nature of our existing worlds. We can be analytical without rejecting emotion, and we can be emotional without rejecting analysis and abstraction.

Scientific Paradigms: No Longer a Simple Dichotomy

Are feminists reacting against an already dated scientific paradigm? Du Bois (1983) tells us feminists do not separate the knower from the known, yet (male) philosophers and physicists have previously avowed this message. According to Bruner, in the mid-70s researchers began moving away from positivism towards a focus on interpretation and meaning. Much feminist methodology literature seems to overlook two facts: (a) a qualitative research methodology, which grew from the male-dominated academe, already embodies the very

characteristics claimed as feminist alternatives and (b) even traditional, empirical, deductive methodologies have drifted away from the earlier, strictly positivistic paradigm.

In essays originally written over fifty years ago, Vygotsky (1978) critiqued both behavioristic and introspective science for their reliance on a stimulus-response framework which restricted study to lower level processes. He called for a new focus on developmental processes in which scientific analysis could provide explanatory rather than only descriptive interpretations. In addition, Vygotsky contrasted phenotypic analysis (concerned only with external features) with genotypic analysis (concerned with origins rather than outer appearances) and warned us that if essence coincided with outer manifestations of form, "[e]veryday experience would fully suffice to replace scientific analysis. Everything we saw would be the subject of our scientific knowledge" (p.63). Vygotsky continues to rely on scientific analysis to ". . . lay bare internal differences hidden by external similarities. . . . In this sense, real scientific analysis differs radically from subjective, introspective analysis, which by its very nature cannot hope to go beyond pure description" (p.63). Vygotsky's ideas emerged from male-dominated psychology, yet his essays concerning research methodology offer particularly useful information to feminists who are still struggling to develop both concepts and a linguistic framework for discussing the role of gender relations in society.

The Feminist Scholar: A Split Existence?

Spender (1980) tells us that since men have been viewed as the norm and women as a systematically excluded aberration, we must prioritize constructing knowledge about ourselves by deconstructing our oppression. Spender is a separatist. She believes that women have a different view of the world from men and that the two perspectives can co-exist, with no normative criteria for judging either as right or wrong. In addition, Spender stresses that women need to maintain control of newly created knowledge rather than succumbing to the pressure to join mainstream, male-dominated studies in order to become legitimized. Mies (1983) suggests women scholars live schizophrenic existences since they are simultaneously victims of oppression and participants in the privileged male academe. Because of this split existence, we must suppress emotions in order to adhere to the requirements of the competitive male-dominated academic world (neutrally gathering objective data, conducting value-free research with non-reciprocal subject-object relations, etc.). Mies outlines a feminist research methodology which looks much like a Freirian "conscientization" model. Her distinctly feminist attribute stems

from her assertion that women are better sensitized toward the psychological mechanisms of dominance because we share the "inner view" of the oppressed and because men lack empathy and sociological imagination.

I do not know if Mies' views are representative of many feminist scholars, but I have heard similar statements in discussions frequently enough to assume that she is not alone in her thinking. I fully agree that women have been neglected and/or viewed as aberrant with traditional, male-dominated scholarship, but I am bothered by Mies' conclusions. Why repeat the mistakes of positivism by generalizing and stereotyping one-half of humanity? What makes the girls who grew up at the yacht club automatically sensitive to the lives of black ghetto youth, to the needs of illiterate and unemployed adults, or even to gender-specific issues, such as childrearing in

Third World populations? And, how do we know that those who have access to print (in most cases the privileged, educated elite) can speak for all women?

Language: How Do We Analyze Oppression Via a Sexist Tool?

If we assume that language itself shapes our thoughts and our investigations, how do we escape our linguistic heritage in order to explore gender relations? Calloway (1981) raises a disturbing question: How do we find--using the very language which expresses sexism--an authentic form of expression for female consciousness and experience? This question also relates to Gilligan's proposal of women's different moral voice. If we, as women, have been defined and valued by men in relation to our roles as caretakers, the reification of a morality of care only perpetuates our male-prescribed roles (McKinnon, 1987). Again, how do we jump out of our cognitive and linguistic heritage in order to address such questions?

Language, according to Bruner, is our most powerful tool for organizing experience and for constituting reality. Our mind's symbolic procedures construct the world (Bruner, 1986, citing Goodman), but these procedures are based in cultural and linguistic contexts (Bruner contrasts Piaget's "naive realism, which assumes an aboriginal reality, to Geertz' "irreducibility" of meaning, in which world-making involves transformations of worlds and world versions already made). Du Bois (1983) says "the distorting perceptual and conceptual lenses of patriarchy are the lenses through which we have all been taught to look. Removing them is slow, sometimes painful, and frightening as it opens eyes to reality-without-explanation" (p.110).

Du Bois believes our language is still inadequate for the task of explaining the reality of women's lives; we need to develop words and concepts to name, describe, and foster understanding. Feminist scholarship must follow Du Bois' lead in examining our linguistic heritage and its role in our world-creating. Rather than continuing the male-initiated activity of dichotomizing or rejecting research methodologies, we need to understand how our most important and powerful tool--language--is, itself, shaped by a sexist society. In addition, we must begin to draw from the best of all traditions as we search for new modes of expression and understanding.

Conclusion

Some final thoughts: Researchers such as Belenky et al. (1986) criticize dominant educational pedagogy with respect to women's needs as knowers. These authors propose "connected teaching" as a means towards creating an educational atmosphere in which students are not objects for receiving knowledge--as in Freire's (1970) "banking" concept --but rather actively participate in a public construction of truths. They call for a problem-posing model, stressing connection over separation, understanding and acceptance over assessment, and collaboration over debate. Bruner describes education as a culture-making process, one

in which students are the agents of knowledge as well as its recipients. Learning is a negotiated and shared communal activity. He also says we know far too little about learning from vicarious experience and from interaction.

Belenky et al.'s ideas make sense to me, but I do not believe that current pedagogy is appropriate for either girls/women or boys/men. I believe feminists should critically embrace both the narrative and the paradigmatic, the qualitative and the quantitative modes of knowing. We should examine "male," "female," and "human" ways of knowing, pedagogical reforms, and modes of thought. To do otherwise only perpetuates the arbitrary splits between emotion and reason, right and left brain, public and private worlds, ...

In conclusion, I have not found, after this brief literature search, a distinctive feminist methodology, but I agree with Du Bois that one of our major tasks concerns language and that we need to create more adequate analytic strategies in the fight against discrimination and oppression.

FOOTNOTE

1 Lyotard, in his post-structuralist critique of the scientific mode of thought, says that our current lamenting over the loss of meaning "boils down to mourning the fact that knowledge is no longer principally narrative." He suggests "operators like development" are used to derive "scientific knowledge from narrative knowledge, as if the former contained the latter in an embryonic state" (p.26-27). Narrative knowledge is tolerant of scientific knowledge, as one variation of many, but scientists classify the narrative as "belonging to a different mentality: savage, primitive, underdeveloped, backward, alienated, composed of opinions, customs, authority, prejudice, ignorance, ideology. Narratives are fables, myths, legends, fit only for women and children (p. 27). Clearly, Lyotard would be set for an argument with Bruner, who accepts both types of knowledge.

REFERENCES

Belenky, M., Clinchy, B., Goldberger, N. & Tarule, J. (1986). Women's ways of knowing. New York: Basic Books.

Bruner, J. (1986). Actual minds, possible worlds. Cambridge, MA: Harvard University Press.

Cocks, J. (1983). Suspicious pleasures: On teaching feminist theory. In G. Bowles & R. Klein (Eds.), Theories of women's studies (pp.171-82). Boston: Routledge and Kegan Paul.

Du Bois, B. (1983). Passionate scholarship: Notes on values, knowing and method in feminist social science. In G. Bowles & R. Klein (Eds.), Theories of women's studies (pp.105-116). Boston: Routledge and Kegan Paul.

Du Bois, E., Kelly, G., Kennedy, E., Korsmeyer, C., & Robinson, L. (1985). Feminist scholarship: Kindling in the groves of the academe. Chicago: University of Illinois Press.

Freire, P. (1970). Pedagogy of the oppressed. New York: Continuum.

Kellar, E. (1985). Reflections on gender and science. New Haven: Yale University Press.

Lyotard, J-F. (1984). The postmodern condition: A report on knowledge. Minneapolis: University of Minnesota Press.

MacKinnon, C. (1987). Difference and dominance: On sex discrimination. In Feminism unmodified: Discourses on life and law (pp.32-45).

Cambridge, MA: Harvard University Press.

Mies, M. (1983). Towards a methodology for feminist research. In G. Bowles & R. Klein (Eds.), Theories of women's studies (pp. 117-139). Boston: Routledge and Kegan Paul.

Reinharz, S. (1983). Experiential analysis: A contribution to feminist research. In G. Bowles & R. Klein (Eds.), Theories of women's studies (pp.162-91). Boston: Routledge and Kegan Paul.

Vygotsky, L. (1978). Mind in society. Cambridge, MA: Harvard University Press.

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N E W H O R I Z O N S IN A D U L T E D U C A T I O N

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NEW HORIZONS IN ADULT EDUCATION
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INTO 'TERRA INCOGNITA': CONSIDERATIONS ON THE 'TIMELINESS' AND 'IMPORTANCE' OF THE CARNEGIE CORPORATION'S EARLY INVOLVEMENT IN ADULT EDUCATION

by

Michael Law

NOTE: This is a significantly revised version of a paper presented to the Canadian Association for the Study of Adult Education Conference in Calgary, Canada during May, 1988. As there is a sense in which aspects of this work are ongoing, those interested in more detail are referred to my "Elephants' Graveyard" paper (Law, 1988a); an edited and much revised version of that paper is expected to be published in monograph form by the Syracuse University Kellogg Project in the early part of 1989.

INTRODUCTION

With the specter of free trade and further cultural assimilation haunting Canada, this is not a propitious time for a foreigner to highlight American sponsorship of Canadian adult education. However, in the formative years of organized adult education in Canada, the direction of development was influenced significantly by the Carnegie Corporation and its "chosen instrument," the American Association of Adult Education (AAAE). Between 1926 and 1935, $122,500 U.S. was granted for the purpose of adult education in Canada and Newfoundland: Newfoundland Adult Education Association ($22,500); Frontier College ($10,000); Ontario WEA ($10,000); Acadia University Extension ($15,000); St. Francis Xavier's "Antigonish Project" ($48,000); AAAE ($16,000). This last grant was for the purpose of establishing a Canadian organization cast in the image of the American Association. Interestingly, this grant was not provided to Canadians; establishing such an organization was funded as an AAAE project!

Another foreigner, Armstrong (1968), details this American role in the formation of the Canadian Association for Adult Education (CAAE); this is a descriptive and semi-evaluative study, however, and offers only limited, interpretive, theoretical insights. Although this thesis is frequently cited, the subsequent 'nativistic' tendency in Canadian adult education historiography has been inclined to relegate further the American influence to uncritical observations and reductionist footnotes. The result is a distorted popular memory. What the footnotes neglect is the screening role

played by the American Association; it stood in relation to the Carnegie Corporation as "advisor and critic." Thus, while the initiatives behind Canadian projects that received or did not receive funding were indigenous, decisions as to which projects to support were made on the recommendation of the AAAE. In effect, a small group within the AAAE essentially made those recommendations. That group included, as far as I can ascertain, Morse Cartwright, Everett D Martin, and James Earl Russell, along with the president of the Carnegie Corporation, Frederick Keppel. At this stage, we do not know very much about Canadian projects that sought, but failed, to obtain Carnegie funding. We do know, however, that, for those that were supported, this money was crucial. Clearly, these agencies and projects conformed, in general terms, to the AAAE/Carnegie concept of 'worthwhile' adult education.

The thrust of the argument upon which this paper is premised is that we cannot make sense of the Canadian history unless we have a better grasp of the ways in which Canadian adult education was imbricated into American developments. For not only was this a matter of grants, Cartwright, Keppel, and Gustav Beck also played major roles in the establishment of the Canadian Association for Adult Education (Armstrong, 1968), while a succession of Canadians played a role in the American Association. The significance of this imbrication extends well beyond the 1920s and 1930s. It is beyond the scope of this paper, but I think it can be argued that the foundations of an American Continentalism in adult education were laid in the 1920s. I hold that a line of continuity can be traced from those early contacts to present graduate programs and to the involvement of Canadians--or Canadian-based professors--in the American Association for Adult and Continuing Education (AAACE), the Commission of Professors, and the Adult Education Research Conference (AERC).

The purpose of the study reported here, however, was much more limited. It sought to locate early Canadian developments in context by examining critically the symbiotic relationship between the Carnegie Corporation and the AAAE and by revisiting the circumstances of the founding of the American Association. This summary paper offers an interpretive historical sketch that seeks to identify the contours of the ideological framework within which organized adult education in America was fashioned.

THEORETICAL FRAMEWORK

In general terms, the theoretical orientation of the study was informed by insights derived from contemporary, neo-Marxist, British historical sociology, in particular, the works of Edward Thompson, Raymond Williams, and some of those associated with the Birmingham Centre for Contemporary Cultural Studies, especially Richard Johnson. Obviously, this

is not the place to present a comprehensive introduction to that work which offers alternative ways to think about turn-of-the-century developments in adult education. The thrust of this work, though, affords helpful insights into working-class culture by highlighting and emphasizing the cultural dimension of popular struggles and campaigns. In this analysis, the concept of culture is reworked in a way that stresses values and meanings and their creation and recreation in the course of everyday life. The concern, therefore, is to understand more richly Marx's observation that

people make their own history, but not in circumstances chosen by themselves. The importance of all this for adult education is that the modern movement was born of the social and political ferment--the democratic upsurge--of the late 19th and early 20th century. In the main, the social and political forms that came to dominate resulted from the reaction to those popular movements and can be seen as attempts to harness and deflect the energy of working people.

Two related sets of ideas from Williams were employed in this study. The first was articulated in a 1961 paper to adult educators and shortly thereafter in his classic work, "The Long Revolution." He holds that in the 19th century, three strands of thinking about education emerged: vocational training, elitist humanism, and public education. It is the last of these that informed liberal adult education. In a later essay, "A Hundred Years of Culture and Anarchy," Williams (1980) writes of two streams in liberal thought. The first emphasizes excellence and humane values but, at the same time, is distrustful of popular culture and politics, both of which are seen as threats to those values: Mathew Arnold's "Culture and Anarchy." The second holds the same values but also affirms the democratic impulse and the extension of popular education; implicitly, "its enemies were the political and economic system, the manipulators, the anti-educators" (p. 5). The elitist, humanist strand of thinking reflected the first of these traditions. Public education was informed predominantly, but not exclusively, by the second. In other words, traces of Mathew Arnold's distrust of ordinary people and their 'anarchical' culture can be found within the public education tradition.

When we use these ideas to think theoretically about the formative period of adult education, especially in North America, we also have to interweave ideas about professionalization (Popkewitz, 1988). Amy Rose (1979) emphasizes this impulse in her dissertation. Ellen Lagemann (1987) also offers useful insights in her wider discussion of the Carnegie Corporation. Harold Stubblefield (1988) draws substantially on both. My feeling, however, is that this approach is too limited (see Note 1).

The 'facts' of the formation of the AAAE are well recorded (Cartwright, 1935; Grattan, 1955; Knowles, 1955, 1962; Rose, 1979; Stubblefield, 1988), even if largely forgotten. In June, 1924, Frederick Keppel, the relatively new president of the Carnegie Corporation, convened a meeting of people interested in adult education. Out of this emerged an Advisory Committee and from that an Executive Committee of six: Charles Beard, Alfred Cohn, C. R. Dooley, Eduard Lindeman, Everett Dean Martin, and James E. Russell. A number of studies of adult education were launched--with Carnegie funding--and a series of regional conferences convened. L. S. Klinck, the president of the University of British Columbia, attended the conference in California; there is also a suggestion in the World Association of Adult Education's papers that Albert Mansbridge, founder of the British Workers' Education Association (WEA), was present, probably at the invitation of Leon Richardson. However, there is no confirmation of this in Rose's dissertation. On March 26, 1926, the Association's founding conference was held in Chicago. A short time later, Cartwright, Keppel's assistant at Carnegie, was appointed Executive Director.

Cartwright and Knowles credit Keppel with the initiative; Grattan claims that the idea of involving Carnegie in adult education was already percolating within the Corporation before Keppel's appointment. Stubblefield, relying on Rose (1979) and Lagemann (1987), makes much the same argument as Grattan. Clearly there was some earlier thinking within the Corporation about extending its role, but the weight of evidence still favors the thrust of Cartwright's account. First, he was an insider; second, his version and variations of it were published when all the principal players were alive: It was the 'received history.' Third, there is a revealing comment by Keppel in his 1941 Annual Report, a remark I have never seen referenced by adult education historians: "Though the Board authorized the entry of the Corporation into the terra incognita of adult education in 1925 with some misgivings, it soon recognized the importance and timeliness of the step undertaken" (p. 19).

"Timeliness" cues us to the social backdrop. The first part of this century was marked by tremendous social and political ferment. It was an age of popular, often radical, politics. In America a dozen socialisms bloomed; within organized labor there were several militant tendencies. One reaction was repression. Strikes were often met with violence; socialists were jailed; legislative investigations were conducted into 'subversion'; loyalty oaths were begun to be demanded of teachers. Against this backdrop, radical adult education flourished. It formed an important element of the rising, popular labor movement, an element that associated with the Industrial Workers of the World (IWW)--the 'Wobblies' (Paulston and Altenbaugh, 1988). It was also central to the struggles of the 'social feminists' (Lagemann, 1979; Lemons, 1977).

A democrat, Keppel was not a strident voice. He sought to find a 'middle way'; this was a time to promote responsible leadership; education

was the key. In a sense, he might be thought of as a pragmatic Arnold. Shortly after launching his adult education initiative, he explained his moves in terms of a concern that this expanding area of practice had "grown up outside our best educational traditions and leadership, and so without the guidance and control by which it might have profited" (1926, p. 23). If we knit together these scattered comments and contextualize them in ways I lack the space to do comprehensively here, we begin to get some feel for the times, some sense of what Keppel meant by "timeliness" and "importance."

The extent to which Keppel was influenced by European developments is a matter of disagreement. Knowles (1955) claims he visited Europe in 1924 to "inspect" national adult education movements, but I have been unable to corroborate that. According to Cartwright, Keppel was influenced by the British 1919 Report and a collection of essays edited by Stanley (1923). Grattan challenges Cartwright's claims; Stubblefield makes no reference to them. I tend to side with Cartwright. It seems that Keppel's interest in adult education was stimulated by American considerations, but once having made the decision to become involved, he looked to Europe for models. There is no doubt that he found the British Oxford Reformist/Workers' Education Association (WEA) alliance attractive. University-affiliated intellectuals provided leadership; the ideology reflected liberal values and mild social democratic politics and emphasized education and leadership as the core ingredients of a new 'middle way.' Furthermore, by the time of Keppel's initiative, a number of strategically well-placed university leaders were taking an interest in the British WEA. During World War I, Army Education had served as a meeting point for likeminded public educators from Britain, the United States, and the British Dominions (Australia, Canada, and New Zealand). In 1919 these army educators formed the core of Mansbridge's newly founded World Association for Adult Education (see Note 2). Between the end of the War and Keppel's moves,

Mansbridge made extended visits to North America where his ideas were very well received in liberal academic circles.

Keppel turned to two clusters of liberals to advise him on how to implement his ideas. The anchor person was Russell whom Keppel described as "a man with an uncanny instinct for concerning himself with the education of tomorrow" (1926, p. 15). Prior to World War I, Russell's interest had been the professionalization of education. But from around 1918 he had become increasingly concerned with formulating a "more definitely democratic and social objective for education" (Curti, 1959. p. 552). During the Depression, he wrote of adult education as a means of preventing the breakdown of the existing system and consequential social revolution. Another key player was Martin. An elitist, he was an unrepentant subscriber to Arnold's vision of "culture or anarchy." Martin distrusted democracy and scorned "the mob": America had been in cultural and social decline since Jackson's presidency (1828)--it was still sinking. Adult education's redemptive task, hopeless though it may be, was to

reassert the values and culture of 'civilization' and to restore the 'quality leadership' of the enlightened. Martin's influence should not be underestimated; many of his basic ideas were endorsed by Keppel, Cartwright, and, one infers, Russell.

The other cluster revolves around Beard. Much of the education that had grown up outside of the established traditions was worker education; much of this was associated with various socialist groups, but within this movement there were different emphases and political affiliations. Beard was in the thick of this. In 1899, with Walter Vrooman, he founded Ruskin Hall at Oxford University. After working in England for a couple of years, he returned to the United States and, in 1906, was closely involved with the establishment in New York of the Rand School, a venture based on the Ruskin model. Over the next 15 years or so, he and Mary Beard were active in various aspects of worker education. In 1917, while Keppel was still Dean of Columbia College, Beard resigned his professorship in protest at the firing of a pacifist colleague. This embroiled him in a long, bitter feud with Columbia's president, Nicholas Butler, a close friend of Keppel. A short time later, Beard, along with Dewey, James Harvey Robinson, and Veblen founded the New School for Social Research, again incurring the wrath of Butler who accused them of being "a little bunch of disgruntled intellectuals setting up a fly-by-night radical counterfeit of education" (Nore, 1983, p. 39).

In 1921, the New School sponsored the formation of the Workers' Education Bureau; the model was the British WEA's Workers' Education Trade Union Committee (WETUC). Beard, again, played a leading role. A former student, Spencer Miller, was appointed director, and the Beards sponsored him on a visit to Britain where they introduced him to their friends in the WEA. Again, we know little of the details, although a British report of Miller's visit states that 30 Americans were in Britain at that time studying the labor movement (Greenwood, 1922). Beard chaired, and Lindeman, Martin, Miller, and Robinson were members of the WEB's publications committee. The Bureau subsequently secured American Federation of Labor endorsement; by the time of Keppel's initiative, therefore, the Bureau was strategically placed to exercise a moderating influence over a growing and potentially militant area of adult education.

Keppel probably had to mend some broken fences to tap the cluster of fairly radical intellectuals around Beard, although Martin already had some association with them, and there is the suggestion in Curti (1959) that Russell had considerable respect for Dewey. However, without wishing to deny their radical reformism, it is clear from their writings and from

Beard's personal friendships that these American intellectuals had a lot in common with those in Britain who provided much of the intellectual leadership of the WEA (Cotton, 1968). In this vein, I think it can also be said with fairness that on both sides of the Atlantic these intellectuals were becoming more convinced of the possibility of Labor Party reformism.

Finally, despite their more radical politics, Beard and his colleagues shared with Keppel, Martin, and Russell much the same liberal values and a common class location. Thus by 1926, Keppel had knitted together a pragmatic alliance of liberal and mildly radical reformist intellectuals which, in association with educational specialists and a few corporate representatives, was to place an indelible stamp on the tone and direction of emerging organized adult education.

A number of early publications illustrate how this worked in practice. I think the pivotal work is the almost completely neglected study by Nathanial Peffer (1926), "New Schools for Older Students." This was one of the original reports commissioned by Keppel's advisory committee. In it Peffer critically appraises a range of adult educational agencies. The most telling sections are those dealing with worker and political education. Peffer is a good example of the sort of reformist intellectuals about whom I have been talking. In this book he places considerable weight on British experiences. Peffer recounts the split in England between the WEA/Oxford alliance and the radical Labor College movement (Plebs League); he suggests that the WEA's WETUC represents a "middle way." The American WEB is then presented in much the same light: as a "national clearing house of the movement and its official center" (p. 213). In effect, Peffer combs worker education with liberal reformist normative teeth. He is not critical of the Rand School or of the fairly radical Brookwood College but implies, nevertheless, that such partisan education fell outside the unspoken criteria for funding.

When we look at the subsequent pattern of funding, what is striking is the extent to which it walked down this middle road. And not just in America. Very quickly after its formation, the AAAE became involved with Mansbridge's World Association--to a large extent, with Carnegie funds, its benefactor. Work in progress explores this relationship a little further. For the moment, it is sufficient to note that within the space of a few short years, especially in the area of publications, the AAAE-Carnegie connection required the World Association to take more account of its American affiliate's viewpoint than of those of other members. In other words, I think there are scattered pieces of evidence to show that Cartwright, in particular, set out to influence the direction and tone of adult education well beyond his own borders. In the case of Canada, we get some hints of this in Armstrong's thesis, however I believe that he fails to knit the evidence together as well he might have.

CONCLUSION

This study sought to introduce some new ways of thinking about the field's history, not just with respect to Canada, but also with respect to early developments in the United States and the relationship between North American adult education and that in other countries. In a sense the study is a plea for a more theoretical approach to history, one that seeks to interpret rather than merely describe the events of the past and to do so in ways that inform the present.

We read history to make sense of the world we live in today. What this study illustrates is how our theoretical understanding of certain developments can be enriched by neo-Marxist approaches such as those of Williams. The study's principal finding is that the alliance of two streams of liberal thought within the AAAE did not develop by accident, but was deliberately constructed by Keppel and Russell. This has implications not only for future studies in adult education, but also for research in 'labor studies,' research which often fails to make links between the Carnegie Corporation's sponsorship of labor education and organized adult education.

The study also offers interpretive insights that might prompt a critical reappraisal of aspects of Canadian adult education history. Space precludes outlining here the further development of the American movement's ideology during the 1920s and early 1930s, but it fits a pattern: an ongoing interest in British ideas--in the main, those of L. P. Jacks and Mansbridge--and a growing interest in ideas from Scandinavia. In the latter case, that interest focussed on residual themes associated with the Danish Folk High Schools and the social democratic conceptualization of the worker as citizen propounded by the Swedish educator, Rickard Sandler.

In the mid-1930s, around the time of the CAAE's creation, there was some tension within the American Association with respect to the radical progressivism of George Counts and the Social Frontier group. Cartwright was especially critical of this point of view, one which he saw as undermining 'liberal education.' At this stage I have no feel for how these concerns spilled over into discussions about the Canadian Association--perhaps they did not. The important point to note, in conclusion, is that historically Canadian adult education has been much more entwined with American developments than it presently acknowledges. Canadian adult education was certainly not "Made in America," but much of what survived was endorsed by Americans. That may be discomforting, but, until Canadian adult educators examine more critically that relationship, they will fail to understand their own history.

NOTES

(1) For a sympathetic critique of Stubblefield's interpretation, see my review in Adult Education Quarterly (Law, 1988b).

(2) I hope to bring together work on early English influences on American adult education in time for a history conference at Syracuse University in March, 1989.

REFERENCES

Armstrong, D. P. (1968). Corbett's house. Unpublished Masters Thesis, University of Toronto.

Cartwright, M. A. (1935). Ten years of adult education. New York: The Macmillan Company.

Cotton, W. E. (1968). On behalf of adult education: An historical examination of the supporting literature. Boston: Center for the Study of Liberal Education for Adults.

Curti, M. (1959). The social ideas of American educators. Patterson, NJ: Pageant Books.

Grattan, H. (1955). In quest of knowledge. New York: Association Press.

Greenwood, A. (1922, January). The W.E.B. of America. Highway, 14(4).

Keppel, F. (1926). Education for adults and other essays. New York: Columbia University Press.

Knowles, M. (1955). Adult education in the United States. Adult Education. V(2), 67-76.

Knowles, M. (1962). A history of the adult education movement in the United States. New York: Holt, Reinhart & Winston.

Lagemann, E. C. (1979). A generation of women: Education in the lives of progressive reformers. Cambridge MA: Harvard University Press.

Lagemann, E. C. (1987). The politics of knowledge: The Carnegie Corporation and the formulation of public policy. History of Education Quarterly, 27(2), 205-220.

Law, M. G. (1988a). An elephants' graveyard or buried treasure? The Syracuse adult education collection. An essay report to the Kellogg Project, Syracuse University. Vancouver, B.C. Canada: Adult Education Research Centre.

Law, M. G. (1988b) Review of Harold Stubblefield's Towards a history ican adult education. Adult Education Quarterly, 39(1), 58-62.

Lemons, J. S. (1977). The woman citizen: Social feminism in the 1920s. Chicago: University of Illinois Press.

Nore, E. (1983). Charles A. Beard: An intellectual biography. Carbondale: Southern Illinois University Press.

Ministry of Reconstruction, Adult Education Subcommittee, (1919). Final Report. London: HMSO.

Paulston, R. G. & Altenbaugh, R. J. (1988). Adult education in radical US social and ethnic movements: From case studies to typology in explanation. In T. Lovett (Ed.). Radical approaches to adult education: A reader. London: Routledge.

Peffer, N. (1926). New schools for older students. New York: The Macmillan Company.

Popkewitz, T. S. (1988) Social identity and professionalism: The reconstruction of 19th century teaching in the United States as elements of state building. Paper for symposium on Theory of Professionalization and Conflict; Swedish Colloquium for Advanced Study in the Social Sciences, Uppsala, March 3-6.

Rose, A. D. (1979). Towards the organization of knowledge: Professional adult education in the 1920s. Unpublished doctoral dissertation, Teachers College, Columbia University, New York.

Stanley, O. (Ed.), (1923). The way out. London: Oxford University Press.

Stubblefield, H. W. (1988). Towards a history of adult education in America. London: Croom Helm.

Williams, R. (1961). The common good. Adult Education (UK), 34(4), 192-199.

Williams, R. (1980) Culture and anarchy. In Problems in materialism and culture (pp. 3-8). London: Verso.

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WOMEN AND LITERACY IN TANZANIA

by

Sharon Cramer Bell

ABSTRACT: The question of whether or not women's concerns are being adequately addressed and incorporated into planning and materials for newly literate women is discussed within the framework of the Tanzanian national literacy campaign, a movement which has been a model for nations interested in using adult education as a basis for political, social, and economic development. The important role of women in development and the connection between education and development are well recognized, yet women continue to have a higher rate of illiteracy than men. Using first-hand experience in producing literacy materials as well as reviewing the literature, the author finds that women, due to unequal division of labor, have less time than men to participate in literacy efforts. Most of the curricula are designed to maintain women's traditional, subservient roles. Many textbooks and popular literature contain gender biases and sex stereotyping, both of which hinder self-growth and independence. Recommendations include reorienting teaching materials to promote change through joint decision making, assisting women to develop income generation skills, and focusing on the development of leadership skills and higher self-esteem.

INTRODUCTION

This paper brings together my experiences in Tanzania from 1985 to 1987 both as a member of the Women's Research and Documentation Project (WRDP) and as an Evaluation Advisor for the Canadian Organization for Development through Education (CODE), an enterprise which was providing paper to print post-literacy materials for the Department of Adult Education. Within WRDP, Tanzanian women were researching women's concerns regarding national development, agriculture, economics, health, politics, and education. At the same time, CODE was eager to learn more about the impact of post-literacy materials on women. Over time, I began to formulate some specific questions: Are women's concerns being adequately addressed and incorporated into planning and materials for neo-literate women? What can be done to improve the impact of literacy on women's lives?

WOMEN, LITERACY, AND DEVELOPMENT

Much has been written recently about women, literacy, and development, particularly in response to the United Nations Decade for Women which formally ended in July, 1985 in Nairobi. Development is a complex issue, involving economics, agriculture, industrial production, technology, health and nutrition, as well as education. In many African societies, the burden of agriculture falls on women. Even where men control cash cropping, women provide the food which sustains the family, implicitly, therefore, subsidizing the growth of a cash economy. High productivity of food for local consumption also brings down the cost of food and releases funds which can be redirected toward other needed local or national priorities.

Responsibility for children--including nutrition, hygiene, health, and early education--falls almost exclusively on women. These extremely important tasks are often given short shrift as mothers spend long hours cultivating the fields, searching for fuel, and carrying water, leaving child care up to older siblings. Given the responsibilities placed on women, it seems ironic that until recently they were virtually ignored in donor and government development schemes. Extension programs were geared toward men, leaving women marginalized and in a low status, further reinforcing their feelings of low self-worth and passivity.

Traditionally, women also have less access to formal education than do men for a variety of reasons:

> cultural beliefs and attitudes concerning the value of educating girls, the necessity of child labour (particularly female) in the home and in the fields, concern for the safety of older girls who must travel long distances for education, social beliefs that education should be segregated by sex and that girls should be taught only by female teachers (of which there may be a shortage), and the expectation that boys will support their parents in later life. (CIDA Workbook)

The dropout rate is higher for girls due to pregnancies, lack of school fees, poor teaching conditions, and different curricula for boys and girls.

The result of fewer educational opportunities is a higher illiteracy rate among women. According to a Canadian government report, "In the third World, two-thirds of the illiterates are women, and two-thirds of women over the age of 25 have never been to school" (CIDA Workbook). The gap between male and female illiteracy rates is growing despite literacy programs, largely due to population growth and high primary school dropout rates for girls.

The connection between education and development is obvious; there is no development without education. Education and literacy for women can lead to higher agricultural productivity, better health and nutrition for

children, lower birth rates through improved family planning methods, greater participation in the political process and decision-making, and a more equitable division of labor. But these are possible only if women are also equipped with the basic tools necessary to acquire new skills, training, and instruction.

THE TANZANIAN LITERACY AND POST-LITERACY CAMPAIGNS

In Tanzania overall government education planning can be divided into three areas: formal education, functional literacy, and post-literacy. Although steps have been taken to ensure greater participation of girls in the formal system, they are too late for many older women who have never had a chance for schooling.

The Tanzanian literacy campaign was launched in 1970 and has aroused considerable attention, since its beginning, as a model for nations interested in using adult education as a basis for political, social, and economic development (See Mpogolo, 1980, 1985; Hall, 1975). The basic assumption is that illiteracy can be eradicated only if learning is directly tied to changes in living conditions or increases in production, closely mirroring the concept of functional literacy or work-oriented literacy. Teaching materials, therefore, contain subject matter relating to agriculture (cash crops), health, home economics, and civics. The campaign has reduced the official overall illiteracy rate from 69% in 1967 to 15% in 1983--for women from 80% to 21%. By 1987, a 90% literacy rate was claimed, although it is not within the scope of this paper to examine what these figures really mean.

An important aspect of the post-literacy campaign has been the building of rural libraries. There are now over 3,000 village libraries, and the goal is to have a library in each of Tanzania's 8,000 villages. Those villages which have built permanent buildings and aggressively collected books demonstrate the high impact a library can have on maintaining new literacy skills as well as on catering to various needs of teachers, students, retired officials, and others wanting further education. Unfortunately, however, most libraries are housed in makeshift premises with inadequate reading space and lighting, untrained librarians, and only a few books, most of which have been around for years.

WOMEN'S PARTICIPATION IN LITERACY EFFORTS

Mass education campaigns focusing on political education, agriculture, health, nutrition, and forestry have attracted women because of their direct relevance to women's issues; women's participation, however, is

still lower than that of men. Figures which show women registering for literacy classes in large numbers do not reveal their lower attendance records and high absenteeism. According to the results of the national literacy test held in September 1983, 42% of the men who were expected to be tested were actually tested while only 30% of the women showed up. The number of women expected was already lower than that of men. Correspondence courses form an important component of post-literacy education, yet the National Correspondence Institute's figures show that only 14% of their registrants are women (Muro, 1984).

These figures substantiate my own findings when I went to a village near Dar es Salaam to evaluate post-literacy supplementary readers (Bell, 1986). Each interviewee (11 men and 13 women) was given four new supplementary readers and asked to talk with me about them a month later upon my return to the village. As shown below, a lower percentage of women actually appeared for the interview, and still fewer had read the books.

	Men	Women	Total
Given 4 books	11	13	24
Interviewed	10 (71%)	7 (54%)	17 (71%)
Read 3 or 4 books	9 (81%)	3 (23%)	12 (50%)

Saying they had read the books meant anything from reading a book cover to cover to glancing through and sampling a page here and there. Not only did men read more, but in interviews they reported enjoying and understanding the books more than women.

Several explanations for women's lower participation came out of the open-ended interviews. All the women had children to care for as well as household and farming chores. All women who did not read said they had no time. Many of the women also had additional income-earning activities. The women who failed to appear for the interview were said to be ill, traveling, or unable to leave work. Over half the women given books were single or divorced, i.e., heads of household. The men, on the other hand, tended to be older than the women. Many were retired with leisure time, as the younger men are often working in Dar es Salaam or other towns, again leaving their wives in charge at home.

Clearly a key factor for women is time. In the list of daily activities, reading gets lost somewhere after working in the fields, fetching water and firewood, child care, preparing food, as well as small income-generating activities. To give women more time, many projects have tried to introduce labor-saving devices for this so-called "non-productive" work: grain mills, improved water supplies, improved cooking stoves, health and child care facilities. My question, however, is, "Time for what?" If the extra time is used to produce more agricultural commodities, then are women able to control the products of their labor, or are they continuing

to be exploited? I wonder if any true leisure time is used in the "luxury" of reading. Perhaps the focus on women is all wrong. Perhaps it is the men who must be educated to assume an equitable role in the maintenance of home and family.

INCOME-GENERATING ACTIVITIES AND POST-LITERACY CLASSES

There is an awareness of the need for income-generation for women, and post-literacy classes are geared toward providing some guidance. However, the results have not been very impressive. While in Arusha at a workshop on post-literacy, we visited several villages to see what post-literacy classes and handcraft centers were doing. Many of the women in our group reacted with dismay when they saw rural women being taught to embroider tablecloths and napkins or crochet doilies, all of which were not of an acceptable standard for marketing. There had been no survey to determine whether markets were available, standards of production were low, little was being sold, and the emphasis seemed to be on raising quick money rather than on establishing long-term businesses.

One interesting study found that women's groups which were given financial assistance from donors did not maintain their activities for long; the money often disappeared. On the other hand, groups which started with their own resources made more money and lasted longer (Hannan-Andersen, 1984). Outside help should, therefore, be in the form of management and marketing "know-how," i.e., education and training. Perhaps it is pride in doing something completely on their own which makes certain groups succeed.

Women should be integrated into the mainstream economy rather than shunted off into low-priority, marginal projects where men do not have to deal with them. Making doilies and tablecloths is all very nice, but what women really need is to be able to produce enough food to feed their families. For this, they need access to information and training in all areas of agriculture and appropriate technology.

EVALUATION OF ADULT EDUCATION TEACHING MATERIALS

Another approach to the question of women and literacy is to look at the available reading materials. These can be grouped into three categories: (a) textbooks for formal education, especially primary school texts; (b) materials for literacy and post-literacy classes, including

rural newspapers and supplementary readers and primers; and (c) popular literature--short stories and novels--found in rural libraries and in bookstores.

In providing adult education for women, it is widely accepted that course content must be related to development, if for no other reason than women will make room in their busy lives if they stand to benefit from the practical application of newly acquired skills. The emphasis should be placed on agriculture, hygiene, nutrition, and appropriate technology. Other important foci could include consciousness-raising and personal development. Too often writers of curricula assume women are only interested in or capable of learning about cooking and child care, assumptions which reinforce women's traditional dependent and subordinate roles.

> Development of traditional roles hinders development because women are not being given the necessary foundation to solve the problems in their own lives . . . which include legal, political, and economic problems. Third World literacy programs must deal with agriculture, hygiene, nutrition, environment, traditions, national unity, politics, law, and even more importantly for women, management and leadership training. (Riria-Ouko, 1984)

Most of the curricula, however, are still written and approved by men who tend to have a paternalistic attitude toward women and who may consciously or unconsciously fear changes in the status quo. Below are some comments made by men when asked what kinds of reading materials women want and need. These interviews took place in Arusha and Kilimanjaro regions while I was evaluating the distribution of Swahili books to rural libraries.

* "Women want domestic science and child care."
* "Women want to know what they can do to improve their lives, family life, child care, cooking, sewing."
* "Women are more interested in performing actions or seeing demonstrations than reading or theory."
* "There would be problems if books were provided for women only."
* "Books for women should be in simple language."
* "Women are less mobile than men."
* "If you improve the life of women, you improve the life of the whole family. They are the caretakers of society."
* "Women come later in the evening to the library."
* "More women borrow books than men."
* "Women participate more in adult literacy classes because they 'agree' better. They are told to better themselves and they do."

Women are seen by men as passive consumers of reading materials. The following are some comments made by a woman who is a ward education coordinator in the same region, working with women's groups.

> Women are interested in cooking, nutrition, and cultivation. They want to know how they can help their daughters with their education. They want to be able to benefit from new agricultural methods and see the results of their labor. They want to begin sewing and knitting projects, but need money to buy cloth, machines, and yarn. They want to know how to raise money, perhaps through growing vegetables, in which case they want to know how to develop markets. But women don't have time to read, so I take the books to them. (Personal communication from Rose Kundy)

Home economics readers for post-literate women, ones which I have evaluated, discuss washing and ironing clothes--including proper drying of sweaters--proper care of shoes, knitting, embroidery, and sewing; they contain nothing on marketing, management, or leadership. As long as men continue to write the curricula, women will be taught to retain their traditional homebound roles.

GENDER BIAS IN PRIMARY SCHOOL TEXTBOOKS

Primary school books are discussed in this paper because they may have assisted in shaping attitudes of women in earlier formal schooling. A very interesting article has been written by Anna P. Obura (date unknown) about primary school textbooks in Kenya. She examined agriculture texts aimed at both boys and girls in Standards Four to Eight. She found that men were overwhelmingly portrayed as "both owners of land and the decision-makers and planners [and] they have at their disposal the unpaid labor of their wives and children."

A comparison of male and female references revealed a strong gender bias; men were mentioned 95 times and women 17 times. Moreover, males were typically associated with modern technology, knowledge, science, and experience, whereas women were portrayed as being lazy, ignorant, incompetent wives who finally acquiesce to their husbands' admonitions to make compost or collect firewood. There were no role models for girls which showed women as large-scale farmers, agricultural extension workers, institution managers, or even as successful, independent, subsistence farmers. While this article refers specifically to neighboring Kenya, I suspect a closer look at similar texts in Tanzania would prove interesting. In addition, the Tanzanian government has purchased a large number of Swahili books, for the rural libraries, from the Kenyan publisher of the above-mentioned primary textbook.

After reading a draft of this paper, an American citizen teaching in a Dar es Salaam girls secondary school reported strong gender bias in the texts she used for teaching English (published in England). In two examples of how to write a paragraph describing oneself, the boy came across as strong, self-confident, and outgoing, whereas the girl was shy, unpopular, and did not like herself very much. In desperation, the teacher told her girls to model their writing on the boy's paragraph rather than on

the girl's.

FEMALE STEREOTYPES IN POPULAR LITERATURE

Although few villagers can afford to buy books, there has been a program to purchase books in Swahili by Tanzanian and Kenyan authors and place them in rural libraries. The image of women in this so-called popular literature has been analyzed by Patricia Mbughuni of the University of Dar es Salaam: "Perhaps because most of the authors are male, the women receive very little character development. They serve either as representatives of the evil elements in human nature or make a quick entrance as a domestic model" (Mbughuni, 1979).

More specifically, women characters appear as two main stereotypes. The first is the "evil temptress" or Eve figure who uses her sexuality to lure the hero into crime, disrupts the social and moral order, or creates misrule and chaos. Her opposite is the ideal woman who appears briefly because she is less interesting. She is domestic, docile, beautiful, maternal, well-mannered, patient, and an appendage to the male she serves. A popular variation on the theme is that of the evil temptress who reforms and becomes an ideal wife and mother under the guidance or influence of the male. While there are oral traditional stories which have positive female heroines, they are rarely found in written, popular literature.

Since CODE had helped purchase about thirty titles for rural libraries, I asked Tanzanian staff members--male and female--to read a few and prepare summaries. Women were overwhelmingly described as being jealous, superstitious, emotional, childish, and immoral; others were passive, forgiving, and practical. Men were always in a position of power over women. The following examples demonstrate this point:

Hiba ya Wivu: A wife pretends to have been kidnapped to cover up her absence from home while spying on her husband, whom she wrongly suspects of infidelity. He forgives her after many complications.

Bahati na Sibu: A poor woman wins a lottery, and the husband divides the money between them. He squanders part of his and is robbed of the rest. The wife prudently uses hers to pay school fees and hides the rest. She may be smarter, but she is powerless.

Ng'ombe Akivunjika Mguu: A young girl goes to Nairobi, forgets her family, gets involved with the wrong crowd, loses her job, gets pregnant, runs home, and begs for forgiveness.

Ushirikina si Mzuri: A wife's belief in witchcraft nearly destroys her life and her marriage until she repents and begins to lead a 'normal' life.

Most Tanzanians I talked with, both in town and in the villages, said they found the books humorous, entertaining, and realistic. I began to wonder whether we were helping or hurting women by placing such literature at their disposal.

SUMMARY OF PROBLEMS AND RECOMMENDATIONS

The main issues identified so far are as follows:

1. Women's role in development is vital, and education is an integral part of development;

2. Women participate in literacy and education programs less than men for a variety of reasons, not the least of which is time. Therefore, the rate of illiteracy for women is higher than for men;

3. Curricula written for women in adult education emphasize traditional roles and subservience to men. There is a great need for materials which develop leadership, marketing, and management skills in women and which raise their consciousness and self-esteem;

4. Textbooks in formal education may contain gender biases which become internalized and hinder growth of self esteem;

5. Popular literature tends to portray women as stereotypes, either as evil and immoral or passive and subservient.

The Department of Adult Education, together with the Swedish International Development Agency (SIDA), has already begun to address the curriculum problem by establishing a committee of Tanzanian "women experts" to evaluate the impact and relevance of the adult education curriculum for women. Committee members were drawn from the University of Dar es Salaam, Sokoine University, the National Correspondence Institute, the Ministries of Agriculture and Education, UWT (the women's branch of the party), and other organizations.

The group decided to first conduct field research in several regions and collect data on women's problems and needs. The issues the group found centered on the oppressive division of labor in production and social reproduction; the unequal ownership, access to, and allocation of resources; and the secondary status of women in the decision-making process. Teaching materials were evaluated as to their relevance and impact in solving the above problems. A number of concrete recommendations

were made, the emphasis being placed on the need for change-oriented education to liberate women. These recommendations included some of the following key objectives:

1. Reorienting the materials to encourage joint family decision-making and responsibility between men and women;

2. Integrating all three curricula (agriculture, crafts, and home science) to focus on the problem issues and needs relevant to women, including reorienting to involve both men and women in each curriculum;

3. Localization of the knowledge content in relation to specific technological knowledge needs of women using local expertise and materials;

4. Imparting income-generating skills to increase women's financial resources;

5. Considering the practicability and applicability of knowledge and skills in adult education materials, especially given women's limited time and resources;

6. Identifying and utilizing--by the Ministry of Education--useful materials from other institutions.

The implications of the committee's findings and recommendations are nothing less than revolutionary, as they call for upheaval of one of the most basic cultural norms in African society: male dominance. In the discussion after the presentation of the report, most of the men seemed speechless, but there was general agreement that more localized materials were needed. The supplementary readers for the new curriculum, therefore, will be written by regional writers workshops. Many women are already involved in writing texts, but they may need conscientizing themselves. Finally, materials free of gender bias are of little use if they are taught by males who wish to maintain the status quo.

My own recommendations were formulated specifically in response to CODE's activities in Tanzania, but the following are generally applicable to any organization trying to break the cycle of illiteracy and low self-esteem in Third World women:

1. Seek to identify unpublished manuscripts of local authors, especially women, which develop strong female characters as positive role models. Fund publication for eventual distribution to rural libraries and sale at low cost in national bookshops. One word of caution, however: These books should not be seen as "women's books" which men would not read. The books should appeal to both sexes;

2. Identify materials for use in women's post-literacy classes, materials which develop leadership, management, and decision-making skills;

3. Look for other books written by and about women in other African countries, especially the African Writer Series. These could be translated into local languages and sent to rural libraries;

4. Fund small-scale studies of gender biases in primary and secondary school textbooks;

5. Encourage efforts by individual women to do participatory research and life histories. These are women-to-women efforts which allow women to identify their own problems and tell their own stories. They could be funded either as case studies or as original manuscripts;

6. Continue to support the development of rural libraries. They may be weak, but the infrastructure is in place;

7. Contribute articles for inclusion in rural newspapers, especially stories of successful women's income-generating activities, women in leadership positions, and other strong role models. Articles on women's health issues such as cancer and AIDS could be edited and translated;

8. Support a reader survey to determine women's reading habits, interests, and needs.

This paper is meant to stimulate both action and further research. I hope it will be taken as a challenge to design methodologies and material which will continue to clarify women's needs with regard to literacy, education, and development.

REFERENCES

Bell, Sharon (1986). Tanzanian post-literacy Campaign, third and fourth interim progress reports. Unpublished manuscripts.

Hall, Budd L. (1975). Adult education and the development of socialism in Tanzania. Dar es Salaam: East African Literature Bureau.

Hannan-Andersen, Carolyn (1984). Swedish development assistance to Tanzania: The women's dimension. Dar es Salaam: SIDA.

Mbughuni, Patricia (1979). The image of women in Kiswahili prose

fiction. Paper presented at the BRALUP Workshop on Women's Studies and Development. Dar es Salaam.

Mpogolo, Z.J. (1980). Functional literacy in Tanzania. Dar es Salaam: Swala Publications.

Mpogolo, Z.J. (1985). Post literacy in Tanzania. Dar es Salaam: Africana Publishers.

Muro, Asseny (1984). Non-formal education: A tool for the development of women in Tanzania. Paper presented to the East Africa Seminar, Institute of Adult Education. Dar es Salaam.

Obura, Anna P. Learning the gender bias early; A critical examination of some primary school textbooks. Source unknown. Photocopy marked only "Ceres iii."

Riria-Ouko, J.V.N. (1984). Literacy, programmes and consciousness raising and women's role in development. A paper written for presentation at a literacy seminar for CIDA, Ottawa, Canada.

Report on the Evaluation of the New Adult Education Curriculum from the Point of View of its Relevance to and Impact on Women. Prepared for the Ministry of Education and SIDA, June 1987, Dar es Salaam.

Women in Development and the Project Cycle. Workbook published by Women in Development section of the Canadian International Development Agency. Photocopy.

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PHYSICAL LEARNING ENVIRONMENTS: WHY BE CONCERNED?

by

Rodney Fulton

ABSTRACT: Before research agendas again deal with the question of how the physical attributes of a place impact on adult learning, we must consider some very basic, yet important, questions. This article urges the reader to think about the physical environment as one of many controllable conditions of learning. The author offers a conception of the physical environment as not only a stimulus evoking a response but also as a function of human intent, control, and structure. The purpose of the article is to encourage adult educators to ask appropriate questions about the physical learning environment and to develop increased environmental awareness.

INTRODUCTION

All human activity occurs in a physical setting. Try as hard as we may, we are, as of yet, unable to transcend the physical dimension of our existence. Because the physical environment is such an all pervasive factor of our lives, we sometimes tend to overlook its effects on us; it becomes so common that we treat it as background to our behavior rather than as a direct influence on behavior. In education, often the physical environment is taken as a given over which the learner has little, if any, direct control. Vosko (1985) reports that adult learners generally thought that the design of the learning setting was a responsibility of administrators. At times, teachers, facilitators, resource people, or leaders have a bit more control over the setting; however, they exercise little of that control to enhance learning. All too often, it is easier or less time consuming to simply take the learning environment as is than to adapt the physical characteristics to a more effective condition.

After defining what I mean by the physical environment, I will offer reasons why the adult educator should be concerned with the effects of physical design on learning. I will then provide a possible matrix for educators to consider in evaluating the diverse environments in which they and their learners use for educational purposes.

THE PHYSICAL LEARNING ENVIRONMENT

Defining the concept of physical environment is a more difficult task than it first seems. The literature is full of research and writings that use the words, physical environment, with slight variations in meaning. Wiatrowski, Gottfredson, and Roberts (1983) claim that, "The search for person-environment interactions has been hampered by divergent approaches

to the characterization of environments" (p. 55). Some use physical environment synonymously with architectural design (Kasmar, 1970); others define physical environment by measuring some variable such as seating arrangements (Stires, 1980) or proxemics (Vosko, 1984); still others look at physical environment as an interactional phenomenon between the physical setting and the human entity (Moos, 1973). In order to conceptualize physical environments we need to explore the development of basic assumptions. C.S. Weinstein (1981) postulates four premises crucial to her discussion of classroom design.

> The first premise states that the physical setting of the classroom is an integral element of the learning environment. . . .The second premise is that the studies of classroom environments must take into account the social and instructional context. . . .The third assumption is that there is no ideal physical setting that will satisfy all learning situations. . . .The last premise . . . the physical setting of a classroom constitutes an external condition that must be arranged as systematically as the other elements of the stimulus situation. (pp 12-13)

While Weinstein limits her discussion to the classroom, learning environments have not necessarily been limited to the classroom. A learning environment is defined by Finkel (1984) as "every space in a facility in which meeting activities occur and the degree to which each detail of those spaces can be designed to contribute to higher levels of learning" (p 32). If by meeting activities we can include the learner "meeting" the ideas of another in a book, on a tape, or in some other media presentation--that is, there is no requirement for at least two individuals to actually be physically present--then I think Finkel gives a plausible and all encompassing definition. Sommer (1970) researched study areas because "we want to learn the varieties of places used for studying and the perceived advantages and disadvantages of each location" (p. 271). Vosko (1984) used a seminar room, a library, a living room, and a chapel in his study of lifelong learning environments.

WHY BE CONCERNED?

The study of the physical environment in which learning occurs is important since "many studies have demonstrated that substantial differences may occur in the behavior of the same individuals when they are in different milieus" (Moos, 1973). Weinstein (1981) asserts that because "classroom design is clearly secondary in importance to instructional methods and curriculum, there is growing evidence that the physical setting of a classroom is capable of influencing the behavior that occurs within it" (p. 12).

I am not so sure that physical environment is secondary. Surely if one examines only one component of the physical environment, that component is secondary. However, if one uses the functional environment concept developed by David (1979, cited in Weinstein, 1981), then "instead of

trying to demonstrate the universal effects of isolated physical factors, this approach focuses on the environment as it is perceived, responded to, and used by students and teachers" (Weinstein, 1981, p. 12).

I am not so convinced that environment takes a back seat to other components of the learning process. The understanding of the effects of environmental factors individually and their interactional effects are, in my opinion, very central to the maximization of human learning. White (1972), for example, claimed that 25% of adult learning was directly attributable to the effectiveness of the physical environmental design.

A PLAUSIBLE MATRIX

How do we begin to study learning environments when there is such diversity in conceptualization and definition? Is it reasonable to assume from research conducted with children in classrooms that findings can be applied to adults in numerous learning situations or even to children outside the classroom? I suggest that if factors are inherently attributable only to the classroom, then it is tenuous, at best, to generalize to other learning environments. What is called for, in my opinion, is a matrix designed to describe learning environments, one that will classify environments according to their similarities and differences. Kasmar (1970) says that "if people are expected to describe and distinguish among environments and architectural spaces, they will need tools to do so, and they will especially need a scale appropriate for the description of the physical environment" (p. 153).

There are three dimensions along which the functional physical environment can be evaluated. First, the intent of the environment--the purpose for which the learning environment was created. Second, the control of the environment--who in reality has the power to make changes in the environment? Third, the structure of the environment--is the environment structured to provide organized, prescribed learning opportunities or is it arranged to address individual learning needs? These dimensions are not dichotomies; they are continuums along which there are numerous points to which an environment can be assigned. This matrix is also three dimensional with a learning environment classified on each continuum's plane. Drawing an analogy with the classification of learning as formal, informal, and non-formal reinforces that the environment varies just as other learning conditions vary. Perhaps examples dealing with each dimension will help to clarify the matrix.

The purposes of a learning environment can run the gamut from singular and very apparent to multi-purposed and flexible. As an example, consider

a movie theater, generally a place of very informal learning. This learning environment is very singular in purpose: to inform or entertain by use of film. In contrast, learning resource centers, especially as they are used in the United States military, are more formal and very multi-purposed, often serving many individual learners simultaneously in many content areas using numerous media strategies. Finally, consider a living room in an American apartment or home--usually a place of very non-formal learning. This environment has multiple purposes such as watching the news on TV, reading a best seller, and even talking local, state, and national politics. Clarifying the purpose of the environment helps us determine what physical factors are of interest to the researcher.

Control over physical environmental factors is a phenomenon that needs further research. Control runs the gamut from authoritarian, institutional control--generally in formal settings--to individual control, more common

in less formal settings. Individuals may complain and be affected by poor sound projection in a movie theater; however, only the theater's management can exercise control to change the problem. Yet, in a living room the control rests with the individuals in that learning environment. The arrangement of furniture, one of the most researched physical environmental factors, is also very subject to different controls, depending on the environment.

The structure of the learning environment from prescribed to self-directed is another continuum along which environments can be classified. An art museum's galleries provide very prescribed learning by offering the viewing of selected works of art. On the other hand, a library allows the individual to engage in self-directed learning by choosing which of several resources to use to learn about thousands of topics.

CONCLUSION

It is my contention that the physical factors of the environment will effect learning behavior differently, depending on the intent, the control, and the structure of the learning environment. By examining these three factors and classifying the numerous environments in which learning takes place, we can group similar environments and assess the effects of single physical factors such as temperature, furniture arrangements, space, lighting, and color. More importantly, we can determine the interaction of single environmental factors as well as assess the "transaction between an individual and his environment . . . the individual's idiosyncratic use of space and the environment's structuring" (Fitt, 1974, p. 617).

Using intent, control, and structure, we can develop a description of

the environment that can "have maximum meaning and relevance for the ultimate user" (Kasmar, 1970, p. 155). Adult educators, then, can accept that the same physical environment can be adequate for some learning while unacceptable for other types of learning. Thus, a room with permanently fixed furniture all facing forward in amphitheater fashion may not be routinely rejected; rather, once the intent, control, and structure of the learning activity is assessed, a decision is made as to the appropriateness of the environment for that particular type of learning. The science teacher who needs to demonstrate an experiment may use such a setting with great ease; whereas, the philosophy teacher may need to drastically modify, or even reject, such a place! It is not so much the discrete physical attributes of a place, but rather how those attributes enhance or detract learning that we must attend to as adult educators.

REFERENCES

David, T. (1979). Students' and teachers' reactions to classroom environments. Unpublished doctoral dissertation, University of Chicago.

Finkel, C. (1984). Where learning happens. Training and Development Journal, 38 (4), 32-36.

Fitt, S. (1974). The individual and his environment. School Review, 82 (4), 617-620.

Kasmar, J. (1970). The development of a usable lexicon of environmental descriptors. Environment and Behavior, 2 (2), 153-169.

Moos, R. (1973). Conceptualizations of human environments. American Psychologist, 28(8), 652-665.

Sommer, R. (1970). The ecology of study areas. Environment and Behavior, 2(3), 271-280.

Stires, L. (1980). Classroom seating, location, student grades and attitudes: Environment of self-selection? Environment and Behavior, 12(2), 241-254.

Vosko, R. (1984). Shaping spaces for lifelong learning. Lifelong Learning, 9(1), 28, 4-7.

Vosko, R. (1985). The reactions of adult learners to selected instructional environments. Dissertation Abstracts International, 45, 3519A (University Microfilms Order No. DA 850072).

Weinstein, C. (1981). Classroom design as an external condition for learning. Educational Technology, 21 (8), 12-19.

White, S. (1972). Physical criteria for adult learning environments. Washington, D.C.: Adult Education Association of the U.S.A., Commission on Planning Adult Learning Systems, Facilities, and Environments. (ERIC Document Reproduction Service No. ED 080 882).

Wiatrowski, M., Gottfredson, G., Roberts, M. (1983). Understanding school behavior disruption classifying school environments. Environment and Behavior 15 (1), 53-76.

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F O R U M

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INTRODUCING METAPHORS OF CHAOS TO ADULT EDUCATION

By

Robert Domaingue

ABSTRACT: Chaos theory is providing us with new images of the world. The new science of Chaos or Nonlinear Dynamics examines patterns of complex and simple systems. Two principles emerging from the science of Chaos are sensitive dependence on initial condition and self-similarity as symmetry across scale. These principles form viable metaphors for the field of adult education. Sensitive dependence on initial condition, for example, could alert us, in planning our programs, to small changes in the process which can magnify into very large changes. Self-similarity as symmetry across scale might provide us with

> organizing guidelines for educational curriculum. Learning patterns within learning patterns within learning patterns may be formed. Chaos theory, then, can offer adult education rich metaphors through which to examine, in new ways, what it is doing.

Chaos theory brings a new way of looking at the world. This new science looks at the patterns found within complexity itself; there are startling similarities in very different kinds of systems. Very complex turbulence, for example, can produce simple patterns. Very simple systems, on the other hand, can produce unpredictable, chaotic patterns. The study of systems of patterns is what Chaos theory is all about.

Where did chaos theory come from? James Gleick (1987) has written a very readable book tracing the development of the theory, interviewing many of the scientists involved in the initial research. Chaos theory cuts across disciplines and reverses the reductionist direction of traditional science. Chaos dramatically demonstrates that the whole cannot be understood by breaking the parts into smaller and smaller constituents. The tools now exist to go beyond the linear equations and methodologies. Centers for Dynamical Systems or Nonlinear methods are springing up all over the world.

"To some physicists chaos is a science of process rather than state, of becoming rather than being" (Gleick, 1987, p. 5). There are many researchers from different fields--mathematics, physics, biology, astronomy, economics--who are searching for connections in different kinds of irregularity. Chaos provides a bridge for the study of rhythms of the human heart, turbulence in weather, water eddies in a stream, the patterns of drips from a faucet, and the design of snowflakes. Chaos theory helps explain the growth of complexity in nature.

> The first chaos theorists, the scientists who set the discipline in motion, shared certain sensibilities. They had an eye for pattern, especially pattern that appeared on different scales at the same time. They had a taste for randomness and complexity for jagged edges and sudden leaps. . . . They feel that they are turning back a trend in science toward reductionism, the analysis of systems in terms of their constituent parts: quarks, chromosomes, or neurons. They believe that they are looking for the whole. (Gleick, 1987, p. 5)

Scientists exploring systems where order arises spontaneously and coexists with chaos have challenged old assumptions. It is now seen that simple systems can give rise to complex behavior. And complex systems can

be understood by simple behavior. These laws of complex behavior hold universally. It does not matter what the medium is or what the constituent parts of the system are.

Some have felt that chaos is a poor name for describing this work. They feel "the overriding message was that simple processes in nature could produce magnificent edifices of complexity without randomness. In nonlinearity and feedback lay all the necessary tools for encoding and then unfolding structures as rich as the human brain" (Gleick, 1987, p. 307). Chaos does, however, provide a banner under which scientists can study complexity itself.

Chaos theory has been called the most significant discovery since quantum mechanics. Advocates feel that chaos theory, along with quantum mechanics and relativity, will represent the most significant accomplishments of twentieth-century science (Gleick, 1987, p. 6). Chaos is leading a revolution in the way we view the world.

Metaphors are very powerful tools for viewing the world. In fact, we use metaphors as a basis for learning. We compare something we are trying to understand to something we all ready know. We are making the strange familiar (Gordon, 1970). Metaphors have been analyzed in philosophical inquiry (Apps, 1985) and recommended as leads into research in adult education (Candy, 1986). I would like to examine some new metaphors for adult education. These metaphors will provide a rich texture in which to think about the practice of adult education.

Chaos theory has provided several principles which may be of use to adult education. Edward Lorenz, when developing a model of the earth's weather patterns, discovered that very small changes in one part of a system could result in very large changes over time in the whole system. From this discovery, the principle of sensitive dependence on initial condition was formed. A chain of events can have a crucial point where small changes in the system are greatly magnified. Chaos means that such crucial points are located everywhere in the system. The small changes influence the overall behavior. The cumulative results of these small changes cannot be predicted beforehand. From this, Lorenz discerned that long range weather forecasting would be impossible.

Benoit Mandelbrot, through his fractal geometry, demonstrated another principle of chaos, self-similarity. There is symmetry across scale--

pattern inside of pattern. The patterns repeat themselves going both ways in scale. In self-similarity detail is produced at finer and finer scales. The detail is also produced with certain constant measurements. Mandelbrot created computer generated geometrical objects which could be zoomed in on and retain their original patterns at greater levels of magnification. Patterns of symmetry across scale can also be seen in the nature of a fern leaf which retains the shape of the overall plant or the discharges of

lightening.

If these two principles--sensitive dependence on initial condition and self-similarity--are applied to adult education as metaphors, what would it mean? The most important implication of chaos is that we are not dealing with linear systems anymore. "Nonlinear systems with real chaos were rarely taught and rarely learned. When people stumbled across such things --and people did--all their training argued for dismissing them as aberrations. Only a few were able to remember that the solvable, orderly, linear systems were the aberrations" (Gleick 1987, p. 68). What are adult education's linear systems which could be examined in a new light?

Ralph Tyler's (1957) linear approach to determining and evaluating objectives comes to mind. What would sensitive dependence on initial condition mean in this case? Small changes in the process can result in very large changes at the end. Sensitive dependence implies more than a step by step buildup to a final product. In Tyler's linear system the cumulative effect of stages building on stages will not significantly affect the starting point. Also in Tyler's model there is great replicability. The same inputs will result in the same outputs. But is this what really happens? Do our observations of people in these systems follow Tyler's model or are they closer to the chaos model of sensitive dependence on initial condition?

People come to a learning experience with a personal history. Each of these individual histories is different. These histories each act as a sensitive dependence on which the learning is built. At the end of a learning experience we often discover a great diversity of personal meaning. The program has meant very different things to the participants. The chaos model predicts this diversity of meaning.

How would you organize a learning program along the chaos model? A group of people would start out exploring a topic together. Because each individual's initial condition is different, even though the group is exploring the same topic, they will end up at different locations at the end of the program. It is important to realize that one end condition is not better than another--only different.

This can be better explained by describing the use of the Hypercard computer program to demonstrate sensitive dependence on initial condition in action. The program (developed for the Macintosh computer) is based on the model of a Rolodex card file. The computer screen becomes a card linked to many other cards in a `stack.' When exploring a topic "you weave through a stack, jumping from card to card, idea to idea, choosing your own path by touching on the items you are interested in, endlessly discovering new levels, or deliberately aiming toward a desired card" (Kelly, 1987, p. 102). The cards are all linked in several directions. The journey through the cards is directed by the learner's interests. In this way two learners starting out at the same spot could end up quickly in different directions.

Using a computer,

> Another way to imagine it would be to think of a book that had footnotes that appear only when you clicked (touched the cursor) on a passage you wanted to know more about. It would carry you

to interesting details, which might themselves have footnotes

which are footnoted, and so on. Any date might bring you to a fuller account of what else was happening then by clicking on it, or a name might summon a biography. Commentaries, references, citations could all be connected to appear when needed. This vision is called hypermedia. (Kelly 1987:102)

Hypermedia, then, fits the chaos learning metaphor of sensitive dependence on initial condition.

Another useful metaphor for adult learning is self-similarity as symmetry across scale. How would self-similarity as symmetry across scale be used in the classroom? The image of Russian babushka dolls, with a doll inside of a doll inside of a doll inside of a doll, comes to mind. The pattern is repeated within and without. The image retains its integrity at the various levels. Relating this to education would involve the forming of a complete `picture' of the educational experience. This picture or pattern would then be repeated, fully integrated, down into different scales. Individual activities become microcosms of the overall behavior. Self-similarity means the goals are being mirrored in all the activities down to the smallest scale.

There are other ways of viewing self-similarity. The reverse of starting with the fully completed end goal is to start with the individual actions or assignments of an educational program and then trace them up the larger scales to see what the overall pattern would be. In many cases I think we would be surprised to find that our individual building blocks are constructing something we had not intended. For example, we may be building dependence in the learner by our choice of assignments. Are we building dependence or independence in our overall structure?

The principle of symmetry across scale can provide us with general organizing guidelines. It forces us to look at the overall organization to see if all the parts are interrelated. With such an approach I believe overall learning can be greatly enhanced.

CONCLUSION

Nature forms patterns. Some are orderly in space but disorderly in time, others orderly in time but disorderly in space. Some patterns are fractal, exhibiting structures self-similar in scale. Others give rise to steady states or oscillating ones. . . . The dynamics seem so basic--

> shapes changing in space and time--yet only now are the tools available to understand them. (Gleick, 1987, p. 308)

Now that the tools are available chaos theory is providing some very rich metaphors. As was mentioned earlier metaphors can be very powerful tools. They allow us to conceptualize in new ways. Adult education can benefit from looking at its activities through the metaphors of another discipline. Chaos theory, to start, has provided the metaphors of sensitive dependence on initial condition and self-similarity as symmetry across scale. How different does adult education look after being viewed through these metaphors? As chaos theory expands I look forward to additional inspirations for the field of Adult Education.

REFERENCES

Apps, Jerold (1985). Improving practice in continuing education. San Francisco: Jossey-Bass.

Candy, Philip (1986). The eye of the beholder: Metaphor in adult education research. International Journal Of Lifelong Education, Vol.5, No.2.

Gleick, James (1987). Chaos: Making a new science. NY:Viking Penguin.

Gordon, William (1970). The metaphorical way of learning and knowing. Cambridge, MA: Porpoise Books.

Kelly, Kevin (1987). Whole earth Hyperlog: Beginning a communication medium called stackware. Whole Earth Review, No. 57.

Tyler, Ralph (1957). Basic principles of curriculum and instruction. Chicago: University of Chicago Press.

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